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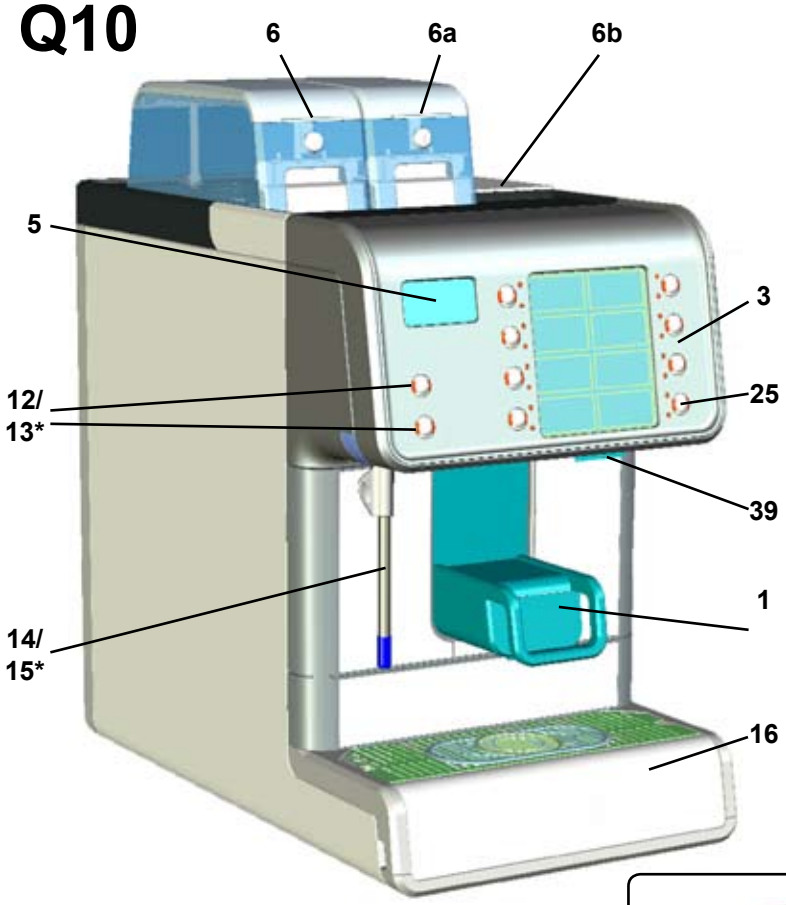
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English

English

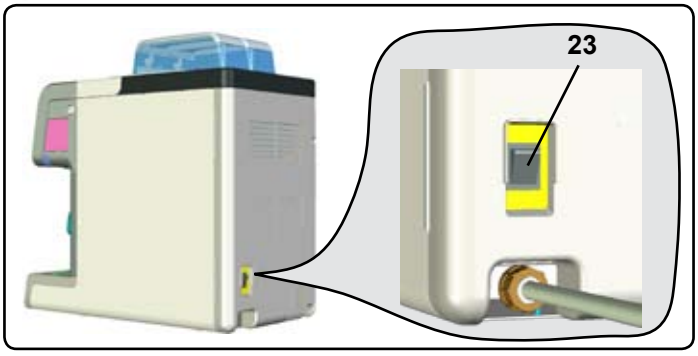
Q10

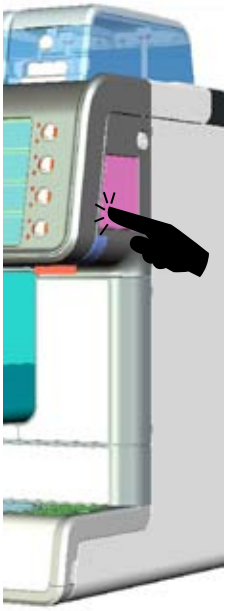


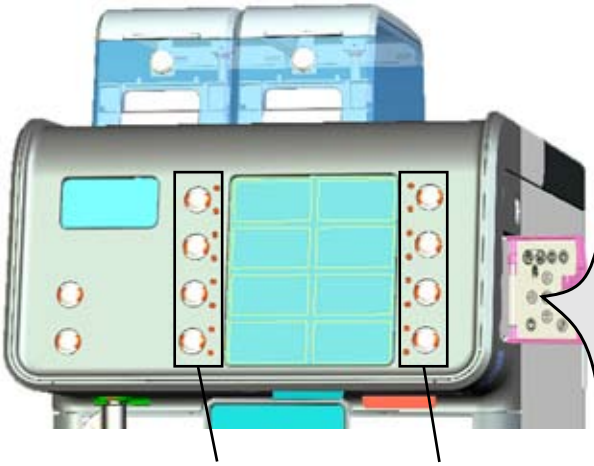
DESCRIPTION OF THE COMPONENTS

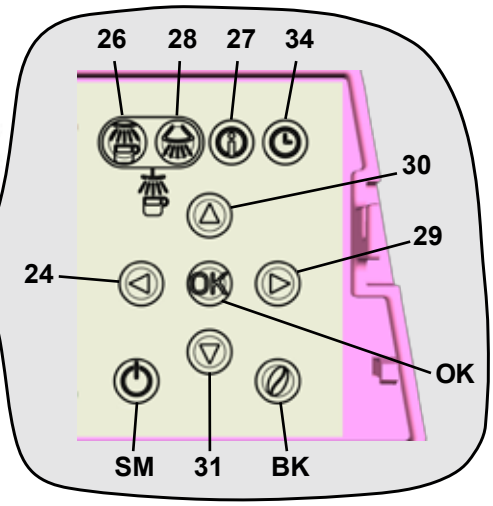
1 Delivery spout
3 Selection panel
5 Graphical display
6 Coffee hoppers 1
6a Coffee hoppers 2
6b Soluble hoppers *
12 Hot water button
13 Steam dispensing button *
14 Hot water outlet
15 Steam pipe *
16 Tray
23 Main switch
24 "**RES**" key (to quit programming mode)
25 Special key
26 Coffee circuit flushing key / short washing
27 "**i**" key (displays the number of cycles)
28 Milk circuit wash key - automatic wash
29 "**PRG**" key (to access programming mode/ menu)
30 "**+**" key (to modify parameters/clock)
31 "**-**" key (to modify parameters/clock)
32 Beverage selector key
34 "**CUSTOMER PARAMETERS**" key
39 Card services slit (technical programming *)
BK "bean" key (coffee dose variation)
OK "**OK**" key (stops products from being dispensed) / Input data confirmation key
SM "Sleep mode" button

The components - * - are applied only in some produit configurations

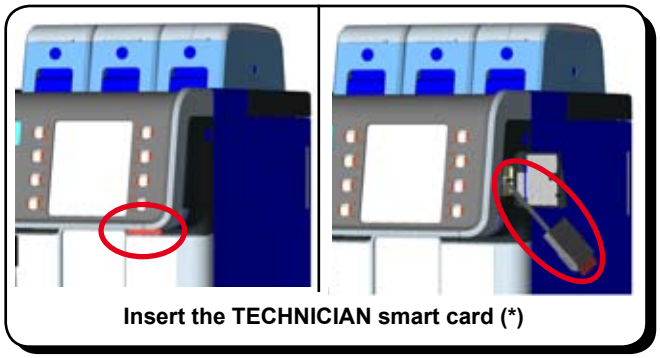


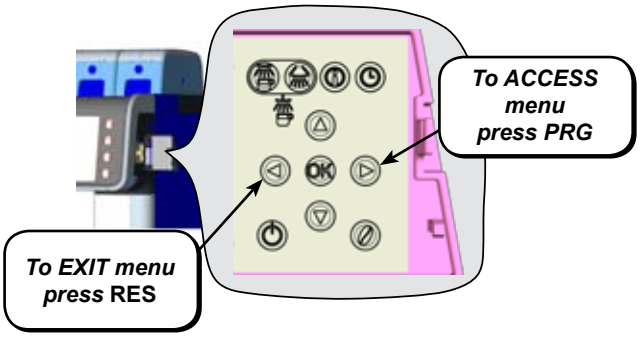






1. Data flow chart - Technician programming (1/3)





English

KEY MENU

Press



Type



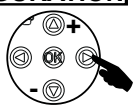
Repetition

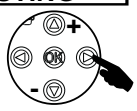
Coffee	*Milk*	*Cappuccino*	*Soluble*	*Mix Soluble*
Water dose	Milk dose	Milk dose	Mixer delay	MIXED START
Grinder	Emulsion	Coffee start/Milk start	Time mixer	SOLUBLE 1
MM.. coffee dose	HM/FM	Emulsion	Predose mixer	SOLUBLE 2
Start water	Cold milk dose	HM/FM	Predose dispenser	COFFEE
Water add.	v Mpl cold milk	Cold milk dose	Dispenser delay	MILK
Heating mode	v Mpl hot milk	v Mpl cold milk	Dispenser type	
Infusion	v Mpl milk HM hot	v Mpl hot milk	tot. time dispenser	
Drying	Milk	v Mpl milk HM hot	t on dispenser	
		Milk	t off dispenser	
		Water dose	Step H2O	
		Grinder	H2O delay	
		MM.. coffee dose	Cycle delay	
		Start water		
		Water add.		
		Heating mode		
		Infusion		
		Drying		

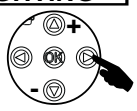
(*) without the smart card reader:
place the dip 5 of the main CPU board in ON position, then push in the following sequence the OK button and PRG button. Keep pushed the PRG button for at least 3 seconds

English

1. Data flow chart - Technician programming (2/3)

CONFIGURATION
Press 

TESTING
Press 

WEIGHTING
Press 

SPECIAL KEY


MANUAL COMMANDS


SPECIAL KEYS

Boiler P.

Level sensib.

BOILER

SOLUB. PARAMETERS1

SOLUB. PARAMETERS2

TURBOSTEAM

MESAUREMENT UNITS

N° grounds

SOFTNER REGENER.

CHANGE W. FILTER

Customer prog.

Bean key

Prog. lock

Paym system

Buzzer

StandBy Leds

WASHING OPTIONS

Stop dispens.

Standard data

DATA IN/OUT

Archive reset

MAINTENANCE

PAY PER USE

HARDWARE SETUP

(*) without the smart card reader:
place the dip 5 of the main CPU board in ON position, then push in the following sequence the OK button and PRG button. Keep pushed the PRG button for at least 3 seconds

1. Data flow chart - Technician programming (3/3)

CUSTOM. PARAMETERS

Press 

SERVICE TIME



- DATE AND TIME
- ON time
- OFF time
- Day off
- Night ON
- Night OFF
- WASH 1
- WASH 2
- WASH 3
- WASH 4
- WASH 5

- ITALIANO
- ENGLISH
- DEUTSCH
- FRANCAIS
- ESPANOL
- PORTUGÛES
- NEDERLANDS
- ニホンゴ
- P CCK

DATA MENU

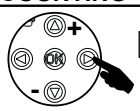
Press 

COUNTERS MENU



- N° coffees
- N° milk
- N° solub. 1
- N° solub. 2
- N° water
- N° steam
- N° steam + air
- N° t. coffee
- N° cycles
- N° MM1
- N° MM2

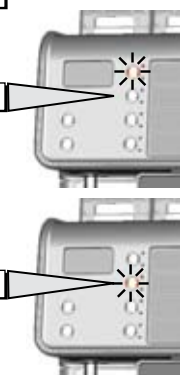
ACCOUNTING



COUNTERS MENU



- Total
- Sel. 01
- Sel. 02
- Sel. ...



INFO

- SERIEL N°
- VERSION SW
- SETUP
- DIP SETTINGS

WASH ARCHIVE

- Required
- Performed
- PARTIALS

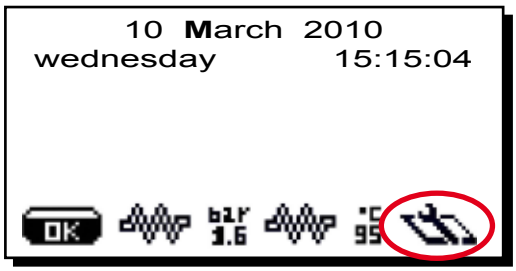
MALFUNCT. ARCHIVE

2. Programming

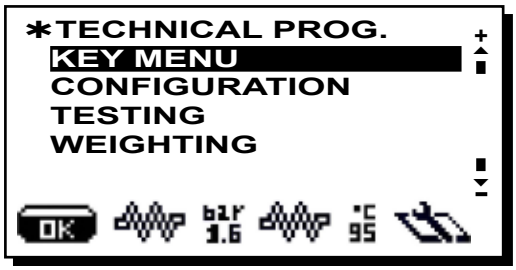
How to enter "Programming" menu: there are two possibilities:

1) Insert the smart card
2) without the smart card reader:
   place the **dip 5** of the main CPU board in ON position, then push in the following sequence the **OK** button and **PRG** (**29**) button. Keep pushed the **PRG** (**29**) button for at least 3 seconds

Besides the date and hour, the symbol TECHNICIAN will appear.

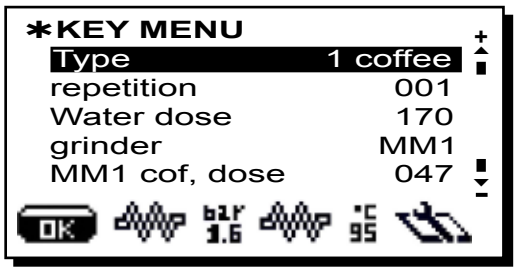


Display of available menus: Press the **PRG** (**29**) key.



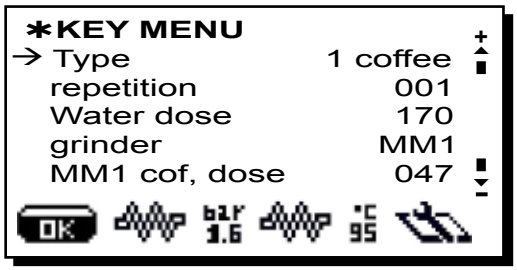
Access to menus: Use the "**+**" (**30**) and "**-**" (**31**) keys to position the cursor on the desired line, then press the **PRG** (**29**) key (press a selection key if the "SELECT KEY" menu appears).

Access and modification of sub-menus: Use the "**+**" (**30**) and "**-**" (**31**) keys to position the cursor on the desired line, then press the **PRG** (**29**) key.



Use the "**+**" (**30**) and "**-**" (**31**) keys also to modify the message or number.

Note: When modifying data, the cursor changes to "→".



Exiting the programming menu

There are two possibilities:

1) Press the ***OK*** key to confirm changes
2) Press the **RES** (**24**) key to leave settings unchanged and exit the menu

2.1 STOP Function

Dispensing of the selected beverage can be stopped before the programmed dose is reached in two ways:
1) by setting a selection key with the STOP function;
2) by setting the "*Stop dispensing*" parameter in the machine's configuration menu.

Note: in this case, the selection key also functions as the START/ STOP key.

Note: If the *"Stop dispensing"* parameter is not set in the machine configuration menu (NO), the **OK** key stops dispensing
Once the **OK** button is pushed it does not change the programmed parameters.

2.2 Heating Mode

The heating mode is a setting that maintains the optimum brewing temperature for each type of coffee beverage.

How it works

When a dispensing key is pressed, the coffee boiler resistance is activated for the time needed to reach the correct brewing temperature.
The coffee boiler heats when the dispensing cycle is launched and during grinding, before the brewing phase begins.

How to program

Nine heating modes (from 0 to 8) can be set in the recipes; active modes ranging from 0 to 4, those from 5 to 8 are not active and are associated with the heating mode 0.
Each mode from 0 to 4 regulates the coffee boiler heating time divided into 5 intervals.
Each interval is related to the time passed from the last coffee dispensed.

Heating modes with related boiler resistance activation times

Interval	Interval Value (time passed from last coffee)	Heating mode 0	Heating mode 1	Heating mode 2	Heating mode 3	Heating mode 4
1	From "0" to "2" minutes	0 seconds	0 seconds	0 seconds	0 seconds	0 seconds
2	From "2" to "5" minutes	0 seconds	3 seconds	0 seconds	0 seconds	0 seconds
3	From "5" to "10" minutes	0 seconds	5 seconds	3 seconds	0 seconds	0 seconds
4	From "10" to "20" minutes	0 seconds	7 seconds	5 seconds	5 seconds	0 seconds
5	More than "20" minutes	0 seconds	7 seconds	5 seconds	5 seconds	3 seconds
		Recommended for cappuccinos or beverages with added water	*Typical for single espressos*	*Typical for double espressos*	*Typical for coffees with cream*	*Typical for double coffees with cream*

Examples of use

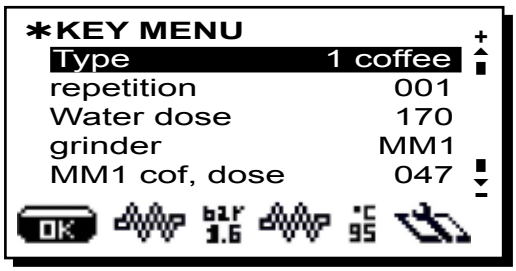
1) Suppose you want to dispense a coffee with a recipe set for ***Heating mode 3*** and ***13 minutes*** have passed from the last coffee dispensed. From the table above, you can see that Interval 4 (from 10 to 20 minutes) intersects with Heating Mode 3 on the square of ***5 seconds***, which corresponds to the duration that the boiler resistance is activated before the coffee is dispensed.

2) If ***Heating mode 1*** is set in the recipe and ***4 minutes*** have passed from the last coffee dispensed, from the table above, you can see that Interval 2 (from 2 to 5 minutes) intersects with Heating Mode 1 on the square of ***3 seconds*** of boiler heating.

   If ***Heating mode 1*** is set in the recipe and ***18 minutes*** have passed from the last coffee dispensed, from the table above, you can see that Interval 4 (from 10 to 20 minutes) intersects with Heating Mode 1 on the square of ***7 seconds*** of boiler heating.

3. Key menu - Coffee selection

Press one of the coffee dispensing keys (**32**) (the relative led will remain on). The following message will appear on the display:



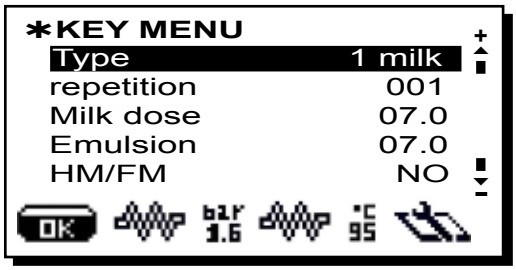
The following coffee selection parameters can be modified:

- ***Type*** (key personalizing, e.g. 1 coffee, 1 cappuccino, 1 milk, 1 soluble 1, 1 soluble 2, 1 mix soluble, 2 coffees, 2 cappuccini, 2 milks, 2 solubles 1, 2 solubles 2, 2 mix solubles, stop, water, null);
- ***repetition*** (it represents the number of distributions of the selected drink, from 001 to 099);
- ***water dose*** (volumetric dosage pulses, from 0 to 999, with increments of 1);;
- ***grinder MM...***(grinder number - 1 left, 2 right);
- ***MM... coffee dose*** (grinde encoder pulses, 0 ÷ 200 with increments of 1);
- ***start water*** (determines if water is added at the beginning or end of coffee dispensing, can be set before or after);
- ***water add.*** (volumetric dosage pulses, from 0 to 999, with increments of 1);
- ***heating mode*** (acts on the brewing temperature, can be set from 0 to 4. See specific paragraph);
- ***infusion*** (infusion time: 0 ÷ 6 seconds, with increments of 0.1);
- ***drying*** (pod drying time; 0 ÷ 5 seconds, with increments of 0.1).

Note: the coffee doses for the grinders set in the technical programming menu, are subject to change in the customer programming menu within a range of + 5 of the set value.

3.1 Key menu - Milk selection

Press one of the milk dispensing keys (**32**) (the relative led will remain on). The following message will appear on the display:

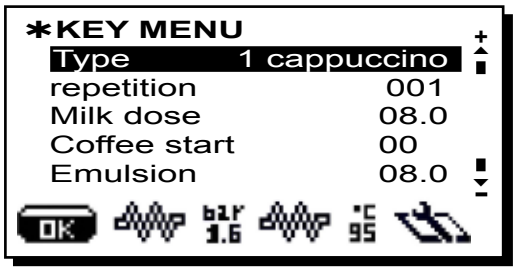


Milk selection parameters that can be changed are:

- ***Type*** (key personalizing, e.g. 1 coffee, 1 cappuccino, 1 milk, 1 soluble 1, 1 soluble 2, 1 mix soluble, 2 coffees, 2 cappuccini, 2 milks, 2 solubles 1, 2 solubles 2, 2 mix solubles, stop, water, null);
- ***repetition*** (it represents the number of distributions of the selected drink, from 001 to 099);
- ***Milk dose*** (milk dispensing time: 0 ÷ 60 seconds, with increments of 0.1);
- ***Emulsion*** (foamed milk dispensing time, from 0 to 60, with increments of 1 second);
- ***HM/FM*** (this parameter lets you decide which type of milk (frothed or regular) to dispense first.
  YES: regular milk – frothed milk;
  NO: frothed milk – regular milk);
- ***cold milk dose*** (cold milk dose; from 0 to 20 with increments of 0.1 seconds);
- ***v Mpl cold milk*** (cold milk pump motor speed, from 10 to 55% with increments of 1);
- ***v Mpl hot milk*** (hot milk pump motor speed, from 10% to 55% with increments of 1. Setting a value of less than 35% is recommended);
  Milk temperature depends from this parameter:
  - low value = high milk temperature;
  - high value = low milk temperature);
- ***v Mpl milk HM hot*** (hot (regular) milk pump motor speed, from 10% to 55% with increments of 1. Setting a value of less than 35% is recommended);
- ***Milk*** (choice between two types of milk, if function is activated).

3.2 Key menu - Cappuccino selection

Press one of the cappuccino dispensing keys (**32**) (the relative led will remain on). The following message will appear on the display:



Cappuccino selection parameters that can be changed are:
- ***Type*** (key personalizing, e.g. 1 coffee, 1 cappuccino, 1 milk, 1 soluble 1, 1 soluble 2, 1 mix soluble, 2 coffees, 2 cappuccini, 2 milks, 2 solubles 1, 2 solubles 2, 2 mix solubles, stop, water, null);
- ***repetition*** (it represents the number of distributions of the selected drink, from 001 to 099);
- ***Milk dose*** (milk dispensing time: 0 ÷ 60 seconds, with increments of 0.1);
- ***Milk start/coffee start*** ** (milk dispensing delayed after coffee dispensing, and vice versa);
- ***Emulsion*** (foamed milk dispensing time, from 0 to 60, with increments of 1 second);
- ***HM/FM*** (this parameter lets you decide which type of milk (frothed or regular) to dispense first.
  YES: regular milk – frothed milk;
  NO: frothed milk – regular milk);
- ***cold milk dose*** (cold milk dose; from 0 to 20 with increments of 0.1 seconds);
- ***v Mpl cold milk*** (cold milk pump motor speed, from 10 to 55% with increments of 1);
- ***v Mpl hot milk*** (hot milk pump motor speed, from 10% to 55% with increments of 1. Setting a value of less than 35% is recommended);
  Milk temperature depends from this parameter:
  - low value = high milk temperature;
  - high value = low milk temperature);
- ***v Mpl milk HM hot*** (hot (regular) milk pump motor speed, from 10% to 55% with increments of 1. Setting a value of less than 35% is recommended);
- ***Milk*** (choice between two types of milk, if function is activated);
- ***water dose*** (volumetric dosage pulses, from 0 to 999, with increments of 1);;
- ***grinder MM...***(grinder number - 1 left, 2 right);
- ***MM... coffee dose*** (grinde encoder pulses, 0 ÷ 200 with increments of 1);
- ***start water*** (determines if water is added at the beginning or end of coffee dispensing; can be set before or after);
- ***water add.*** (volumetric dosage pulses, from 0 to 999, with increments of 1);
- ***heating mode*** (acts on brewing temperature, can be set from 0 to 4. See specific paragraph);
- ***infusion*** (infusion time: 0 ÷ 6 seconds, with increments of 0.1);
- ***drying*** (pod drying time; 0 ÷ 5 seconds, with increments of 0.1).

(**) Start milk/Start coffee function

You can use the "**+**" (**30**) and "**-**" (**31**) keys to change the "**Start milk**" setting (milk dispensing start delayed after coffee dispensing and vice versa) from "**00**" to "**99**" with "**1**" second increments.
If over "**99**" is set, the "Start milk" setting will become the "**Start coffee**" setting (coffee dispensing start delayed after the milk dispensing), then the setting returns to "Start milk" in a cycle.

The default settings for cappuccino selections are:
Start milk 00.



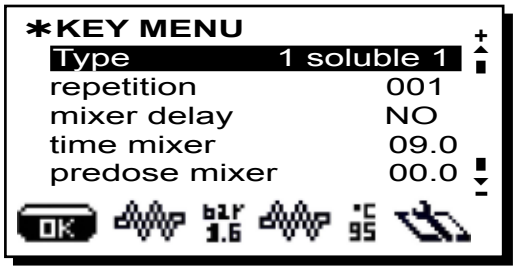
By setting:

"**Start milk 00**" - milk dispensing takes place when the selection key is pressed. After a few seconds, coffee is dispensed;
"**Start milk 99**" or at a high setting that exceeds the coffee dispensing time - milk dispensing starts after coffee is dispensed.
"**Start milk 05**" - coffee dispensing starts, and 5 seconds after the selection key is pressed, milk is dispensed.
Note: If the time setting exceeds the coffee dispensing time, milk dispensing begins immediately after coffee is dispensed.

"**Start coffee 00**" - Coffee dispensing starts after milk is dispensed.
"**Start coffee 99**" or any setting other than 0 - coffee dispensing will start 99 seconds (or after the set time) after milk is dispensed.

3.3 Key menu - Soluble selection

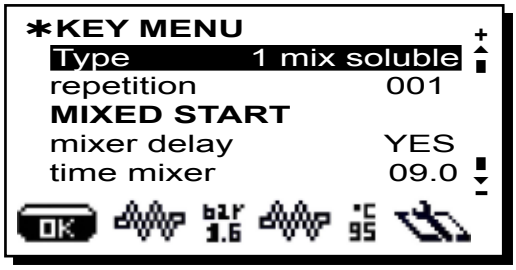
Press one of the soluble dispensing keys (**32**) (the relative led will remain on). The following message will appear on the display:



Soluble selection parameters that can be changed are:
- ***Type*** (key personalizing, e.g. 1 coffee, 1 cappuccino, 1 milk, 1 soluble 1, 1 soluble 2, 1 mix soluble, 2 coffees, 2 cappuccini, 2 milks, 2 solubles 1, 2 solubles 2, 2 mix solubles, stop, water, null);
- ***repetition*** (it represents the number of distributions of the selected drink, from 001 to 099);
- ***mixer delay*** (YES - NO, enables/disables the "*mixer delay time"* function of the *SOLUBLE PARAMETERS"* entry in the *CONFIGURATION* menu. When this function is enabled, the mixer keeps functioning – for the set time – even after the Gsol soluble solenoid valve has closed. This parameter allows the mixer chamber to empty completely);
- ***mixer time*** (mixer activation time, between 0 and 30 seconds with increments of 0.1);
- ***mixer pre-dose*** (the mixer starts before the Gsol soluble solenoid valve; can be set between 0.0 and 10.0 with increments of 0.1 seconds);
- ***pre-dose dispenser*** (the dispenser starts before the mixer, can be set between 0 and 10 seconds with increments of 0.1);
- ***dispenser delay*** (the dispenser starts after the mixer, can be set between 0.0 and 5.0 with increments of 0.1 seconds);
- ***dispenser type*** (dispenser mode, chosen between two soluble powder dispensing modes:
  continuous: powder is continuously dispensed for a time equal to the one set at the entry "t tot disp";
  step: powder is dispensed at intervals, where the entry "t on disp" indicates the powder dispensing phase and the entry "t off disp" indicates the standby phase);
- ***tot time dispenser*** (total dispenser time, between 0 and 30 seconds with increments of 0.1; this is the dispenser dispensing time corresponding to the total time the dispenser is activated in continuous mode);
- ***t ON dispenser*** (dispenser activation time, between 0 and 5 seconds, with increments of 0.1; the parameter is only visible in the step mode);
- ***t OFF dispenser*** (dispenser deactivated time, between 0 and 5 seconds with increments of 0.1; the parameter is only visible in the step mode);
- ***step H2O*** (the Gsol soluble solenoid valve (hydraulic circuit) is activated in steps to modulate the water dose; between 50 and 100%, with increments of 10);
- ***H2O delay*** (dispensing time of just water/steam after the dispenser activation phase, between 0 and 5 seconds, with increments of 0.1);
- ***cycle delay*** (the time set to coincide with the closure of the dispensing cycle with the return of the machine in standby, ready for the next dispensing cycle. Can be set between 0 and 20 seconds, with increments of 0.1).

3.4 Key menu - Soluble Mix selection

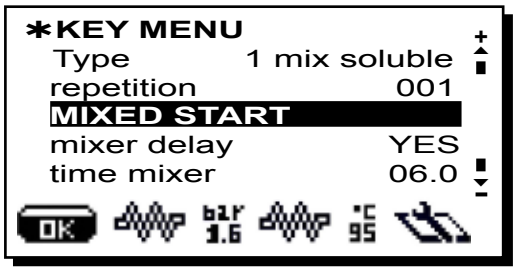
Press one of the mix soluble dispensing keys (**32**) (the relative led will remain on). The following message will appear on the display:



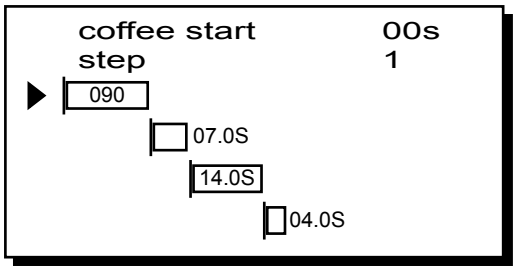
Mix soluble selection parameters that can be changed are:
- ***Type*** (key personalizing, e.g. 1 coffee, 1 cappuccino, 1 milk, 1 soluble 1, 1 soluble 2, 1 mix soluble, 2 coffees, 2 cappuccini, 2 milks, 2 solubles 1, 2 solubles 2, 2 mix solubles, stop, water, null);
- ***repetition*** (it represents the number of distributions of the selected drink, from 001 to 099);
- ***MIXED START*** (press the **PRG** (**29**) key to access a special screen where you can program the coffee, milk, and soluble beverage dispensing sequence to obtain the desired combination.
  See "*Mixed Start"* paragraph on the next page;
- ***"SOLUBLE 1"*** (contains all the parameters described in the "*Soluble Selection"* paragraph, related to the first type of soluble beverage);
- ***"SOLUBLE 2"*** (contains all the parameters described in the "*Soluble Selection"* paragraph, related to the second type of soluble beverage);
- ***"COFFEE"*** (contains all the parameters described in the "*Coffee Selection"* paragraph);
- "MILK" (contains all the parameters described in the "*Milk Selection"* paragraph).

Soluble Mix selection - *"Mixed Start"* function

With the “START COMBO” function, you can program the sequence of dispensing cycles for coffee, milk and soluble beverages to obtain the desired combination.



When the **PRG** (**29**), key is pressed, the display will show the following:



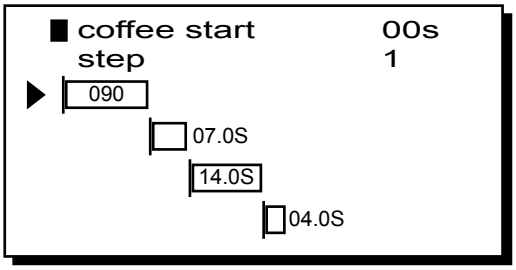
The line on which the cursor is positioned is associated with the coffee beverage; the following lines refer, respectively, to milk, soluble 1 and soluble 2.

The duration of the separate beverage cycles (set in the recipe) is represented by rectangles, to the right or inside of which shows:
- the pulses, for coffee;
- the total duration in seconds, for milk and soluble beverages.

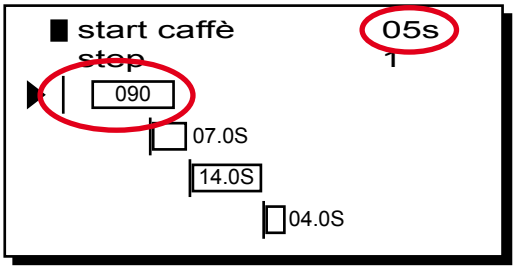
Using the "**+**" (**30**) and “**-**” (**31**) keys to position the cursor ▶ on a beverage, the following parameters are automatically displayed on the first 2 lines:
- ***start...*** (dispensing delay of the selected beverage; can be set between 0 ÷ 90 seconds with increments of 1, or with the OFF option that disables the corresponding beverage);
- ***step*** (dispensing sequence of the beverages:
  1, the beverage is dispensed first;
  2, the beverage is dispensed second;
  3, the beverage is dispensed third;
  4, the last beverage that closes the soluble combo cycle).

Note: Beverages in the cycle cannot be dispensed simultaneously.

To modify the described settings (***start*** and ***step),*** position the cursor ▶ on the line of the desired beverage and press the PRG (**29**) key. The cursor will appear next to the first line on the display (start xxxx ■):

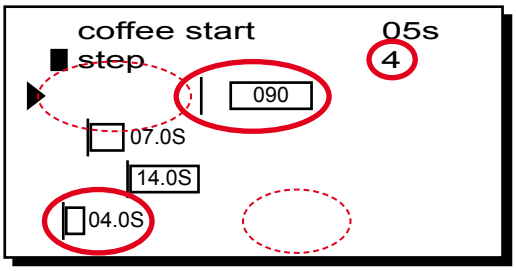


Press the **PRG** (**29**) key again to modify the ***start*** setting. The cursor will turn into →.
Use the "**+**” (**30**) and “**-**” (**31**) keys to modify the dispensing delay for the selected beverage.
Press the **OK** key to confirm the setting. The effect on the composition of the final cycle will simultaneously appear on the display:



In this case, the coffee beverage will have a 5 second delay on the start of the dispensing cycle.

Per modificare il parametro ***step*** è necessario posizionare il cursore ■ sull'omonima riga e premere il tasto **PRG** (**29**); il cursore si modifica in →.
Mediante i tasti "**+**” (**30**) e “**-**” (**31**) è possibile modificare la sequenza di erogazione della bevanda selezionata.
Premendo il tasto **OK** si conferma il valore immesso vedendone contemporaneamente l'effetto sulla composizione del ciclo finale sul display:



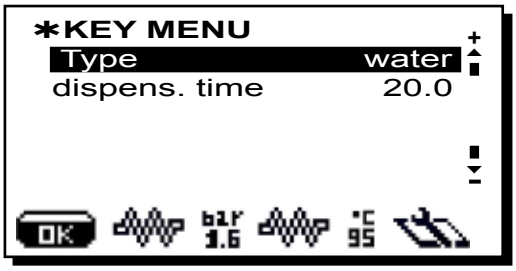
If a coffee beverage replaces soluble beverage 2 in the cycle, it will no longer be the first to be dispensed, but it will close the cycle.
The other beverages in the soluble combo do not change their dispensing order.

Follow the same steps to modify the other beverages as preferred. bvv.

English

3.5 Key menu - Hot water selection

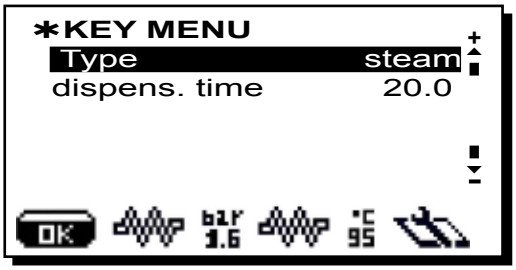
Press the hot water dispensing key (**12**). The following message will appear on the display:



The following hot water selection parameters can be modified:
- ***type*** (key personalizing, e.g.: water dosed, water stop, null);
- ***dispensing time*** (from 0 to 60, with increments of 0.1 seconds).

3.6 Key menu - Steam selection

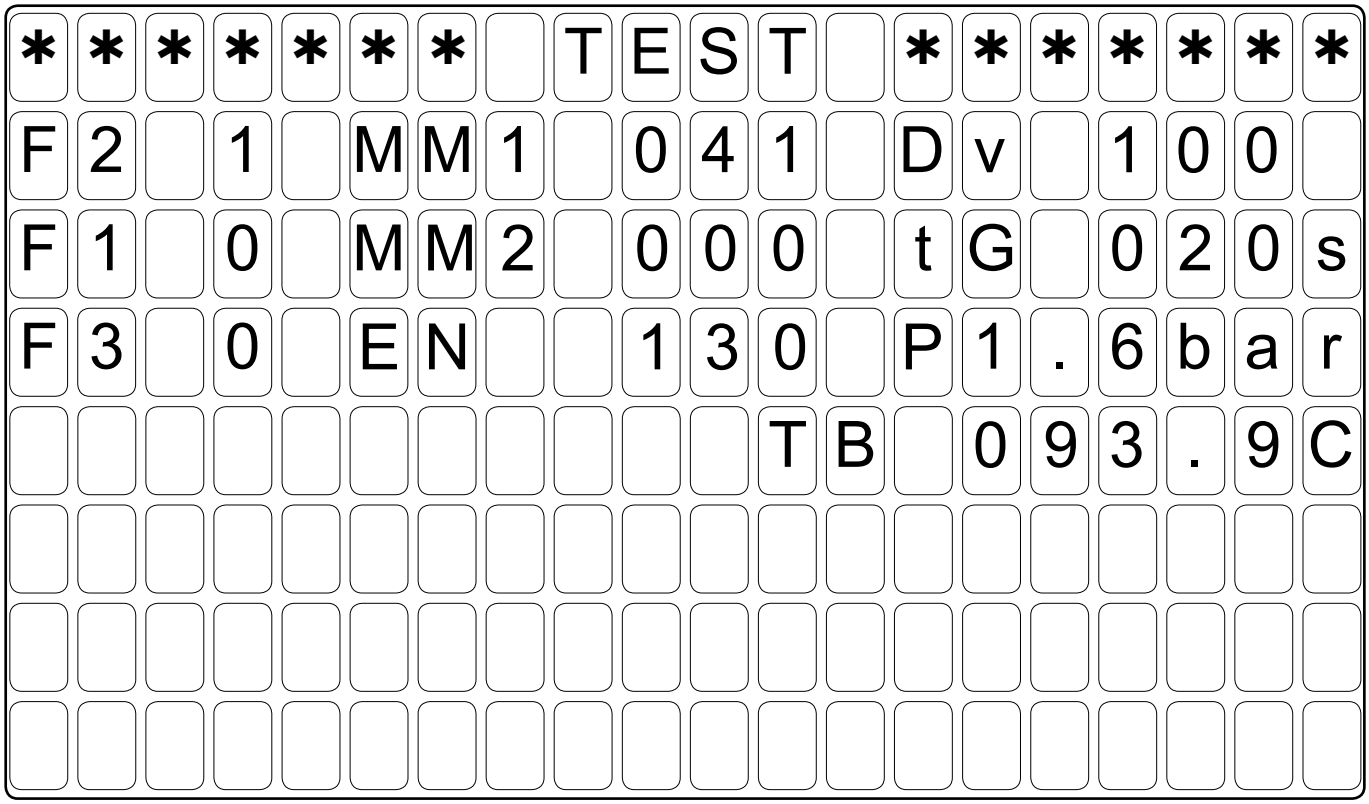
Press the hot water dispensing key (**13**). The following message will appear on the display:



The following hot water selection parameters can be modified:
- ***type*** (key personalizing, e.g.: steam dosed, steam stop, null);
- ***dispensing time*** (from 0 to 60, with increments of 0.1 seconds).

4. TEST board

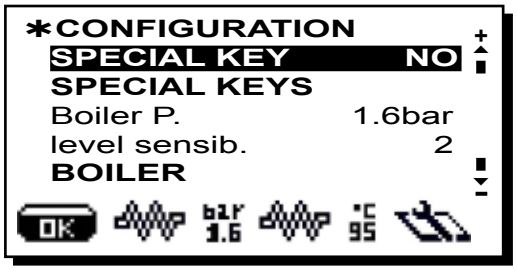
During the view of the drinks, by pushing the “**i**” (**27**) button, on the display will appear the relevant drink parameters while the drink is delivered by the machine.
On the display will appear, for example:



The parameters displayed refer to:

F1: Middle limit switch (1 in position)
F2: High limit switch (1 in position)
F3: Low limit switch (1 in position)
MM...: coffee extraction impulses
EN: group encoder
Dv: Volumetric meter impulses
tG: Dispensing time in seconds
P: boiler pressure

5. Configuration menu



SPECIAL KEY (KEY **25** in the bottom right hand corner of the selection keypad) **– YES**/NO.

YES – the key can be set with one of the functions described in "*SPECIAL KEYS*".

NO – it is set like all the other dispensing keys.

The standard data for the special key is *NO*.

SPECIAL KEYS - The key **25** can be personalized with one of the following functions:

disable (disables key);

stop (stop the dispensing).

II choice (second function, dispensing of a second beverage). See paragraph "*Special keys - Second selection"* on the following pages.

water stop (stop the water dispensing).

Normally the special key is *Disabled*.

Boiler P. - indicates the service boiler pressure: 0,6 ÷ 1,7 bar (9 ÷ 23 psi).

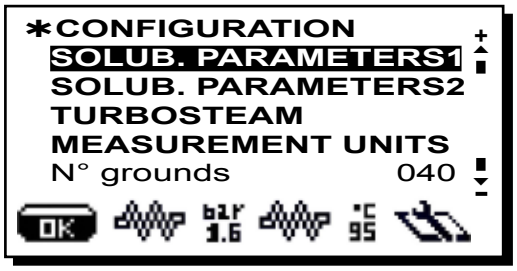
Level sensib. - *Water Level sensitivity:* it indicates the level sensitivity of the boiler water probe.
The setting range is from 1 to 3 (the value 3 indicates the hightest probe sensitivity and therefore the machine will refilles the boiler at the minimum water level variation.

BOILER - The parameter includes 3 sub-menus:

temp. I - coffee boiler operating temperature; can be set between a minimum of 65 and a maximum of 100° C (149 - 212°F);

temp. II - the temperature added to temperature I; it serves to guarantee a good quality of coffee right from the first coffee dispensed after a certain amount of time; can be set between 0 and 10°C (32 - 50°F);

interval - the minimum time that must pass between two dispensing sessions without increasing the boiler temperature set in *temperature II*; can be set between 0 and 20 minutes.



SOLUBLE 1/2 PARAMETERS - defines the mixer functioning time after the Gsol soluble solenoid valve has closed; can be set between 0 and 5, with increments of 0.1 seconds.
Can be enabled in the soluble beverage recipes at the entry "*mixer delay*".

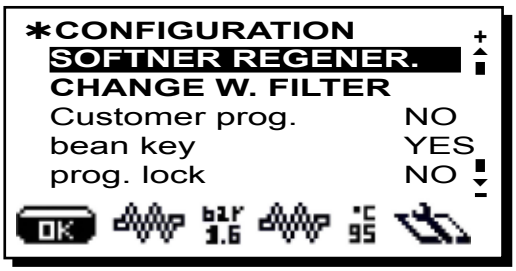
TURBOSTEAM - *emulsion level*: 4 levels can be chosen, where ***001*** is less emulsion and ***004*** is continuous emulsion.

MEASURING UNIT – includes 2 sub-menus:

Temperature – can be set to °C Celsius centigrade or °F Fahrenheit degrees.

Pressure – can be set to bar or psi.

N. grounds – refers to number of grounds, from 0 (external container) to 80.



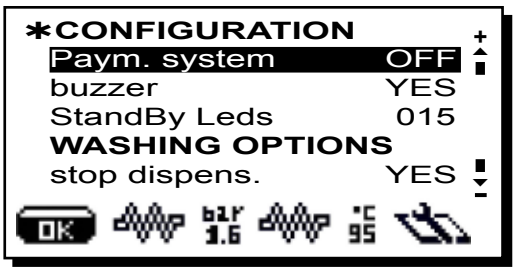
SOFTNER REGENERATION - includes the parameters for the softner regeneration: liters of resin (da 0,1l a 25l), hardness (da 0 a 45 °F).

CHANGE WATER FILTER – When the programmed number of liters is reached, the screen displays a message saying the filter must be replaced.

Customer programming - YES/ NO.

Bean Key – allows the client to change the coffee dose: YES/NO.

Programming block - programming block: YES/NO.
With the function active (YES) the use of the programming keyboard is allowed with the technician card; and keys remains always active.



Payment system – permits configuration of payment system, when connected.

Buzzer - The machine buzzer can be enabled so that a beep is heard when the keys are pressed.

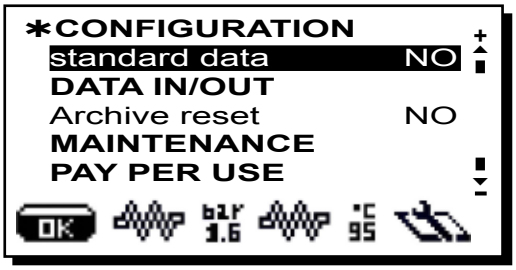
StandBy Leds - (not active).

WASHING OPTIONS - See paragraph *"Washing options"* on the following pages.

Stop Dispensing*:* YES/ NO

YES - each dispensing key functions as a *start/stop* key.
This means that when you press the key during the dispensing phase, it will be interrupted

NO - If the same key is pressed during the dispensing phase, the repeat function is activated.



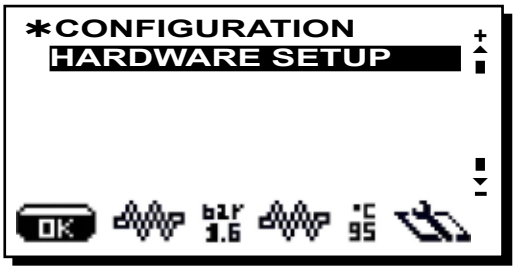
Standard data – loads standard data. YES/NO

DATA IN/OUT – contains three entries:
Key – indicates the key number from 0 to 60.
Data IN transfer from smart card to machine. OUT transfer from machine to smart card.
TX/RX – to start data transfer

Archive reset – zeros the error log (Wash 1 Archive and malfunctions archive) stored on the machine: YES/NO

MAINTENANCE - contains five entries to setting maintenance parameters:
Max cycles - the number of cycles initially set: 40,000.
Max days - the number of days initially set: 185.
N° cycles - the number of cycles remaining before the next maintenance session.
N° days - the number of days remaining before the next maintenance session.
Reset - options are:
NO, countdown of cycles and days remaining before the next maintenance session.
YES, the settings for number of cycles (40,000) and remaining days (185) are reset.
OFF, all controls for programmed maintenance are disabled, and the “N. cycles” and “N. days” counters are zeroed.

PAY PER USE - See paragraph *"Pay per Use"* on the following pages.



HARDWARE SETUP (parameters for cappuccino versions only) - includes 2 sub-menus:
t start (the activation time of the peristaltic pump at the beginning of the dispensing cycle, which can be set from 00.1 to 20.0 seconds);
t inversion (the activation time of the peristaltic pump at the end of the dispensing cycle, which can be set from 00.1 to 20.0 seconds).

English

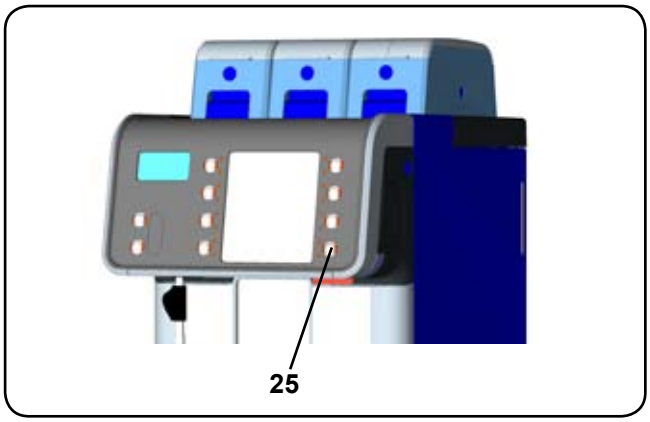
6. Special keys
Second selection

SECOND SELECTION FUNCTION
Permits a second type of beverage, associated with the dispensing key, to be dispensed.

This function can be obtained in this way:
- access to *Configuration Menu* of the machine;
- *SPECIAL KEY* parameter = YES;
- *SPECIAL KEYS* parameter = *II choice*.

At this point, when the special key is pressed (**25**) and one of the dispensing keys is pressed corresponding to the desired beverage and dosage, the second beverage programmed for the selected dispensing key will be dispensed.

Recipes associated with the second selections are programmed in the *Key Menu* of the machine, by pressing the special key (**25**) and then the dispensing key.



7. Washing options

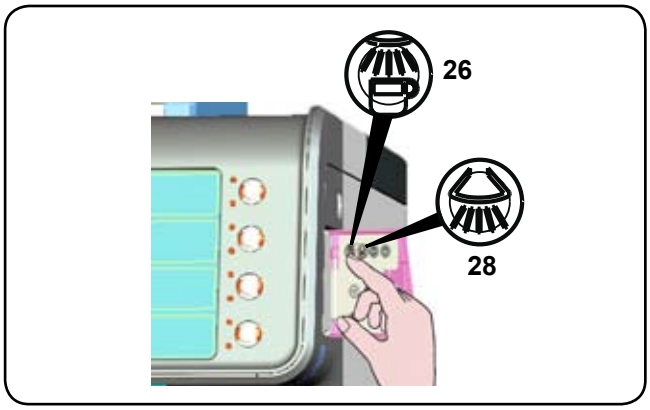
EXECUTION MODALITY

Milk circuit: Keep the milk circuit washing key (**28**) pressed for a few seconds and follow the instructions indicated on the display.

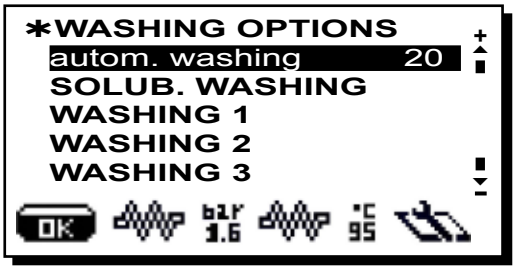
Coffee circuit: Keep the coffee circuit washing key (**26**) pressed for a few seconds and follow the instructions indicated on the display.

Solubles circuit: Keep the coffee circuit washing (**26**) and milk circuit washing (**28**) keys pressed for a few seconds.

The cycles can be activated with the same modality also without a washing demand.
In order to get more detailed information, please consult the machine use and installation manual.



WASHING OPTIONS - includes seven sub-menus for setting washing parameters, one of which to program the soluble circuit washing cycle:



Washing options - Automatic washing

Depending on the selected setting (**OFF/3÷99**), the automatic wash is changed.

Setting "autom. washing OFF":

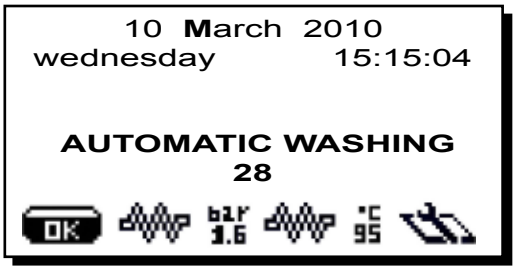
- timed automatic wash cycle is disabled;
- when the button (**28**) is pressed, the milk circuit washing cycle is performed.

Setting "autom. washing 3...99":

- the timed automatic wash cycle is activated and the set time interval starts;
- when the button (**28**) is pressed, the milk circuit washing cycle is performed.

The cycle starts automatically. The time interval is set between 3 and 99 minutes. The timer starts at the end of each milk dispensing phase. When the time runs out, the automatic wash cycle begins.

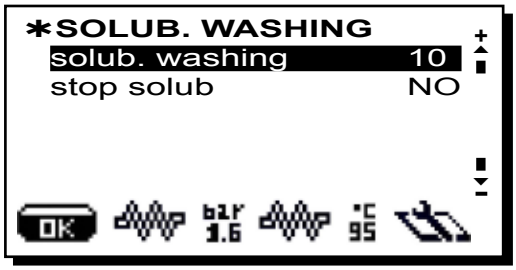
30" before the timer stops, the LEDs on the keys of beverages with milk start blinking. The display appears as follows:



During this standby phase:
If the coffee dispensing key is pressed, the counter will start again 30" from the end of the dispensing cycle (per use);
If a milk/cappuccino key is pressed, the counter will start again from the set time (3' + 99');
If the key (**28**) is pressed, the automatic washing cycle will be immediately performed.

Washing options - Solubles washing

Includes 2 sub-menus:



- ***wash solub*** *(soluble wash cycle)*: the time in minutes after which the request appears for the soluble beverage wash cycle. Can be set between 1 and 20 minutes, with increments of 1 minute, or set to OFF (wash request disabled)..
  At the end of each soluble beverage dispensing cycle, the timer countdown starts. Afterwards the request for a wash cycle message appears on the display.
- ***block solub*** *(soluble block)*: When the function is set (YES), if the wash cycle is not performed within 60' from the time when the message appears, the machine is blocked and prevents all soluble beverage selections.

Washing options - Washing 1, 2, 3, 4, 5

These are wash cycles set at programmable times, each with four changeable parameters, which are:

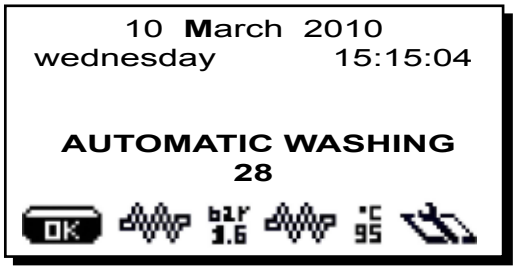


- ***hour***: when the wash cycle must be performed.
  "WASH 1" cannot be disabled. It is requested daily at the programmed hour and within 24 hours..
  WASH 2, 3, 4 and 5 can be disabled and set to OFF.
- ***type***: indicates type of wash cycle that will be performed. Long wash (coffee circuit and milk circuit with detergent).
- ***coffee stop***: when the function (YES) is set, if the wash cycle does not take place within 60' (30' if short washing) from the moment that the "EXECUTE WASHING GROUP" message appears, the machine is blocked and all selections for coffee are inhibited.
- ***milk stop***: when the function (YES) is set, if the wash cycle does not take place within 60' (30' if short washing) from the moment that the "EXECUTE WASHING MILK CIRCUIT" message appears, the machine is blocked and all selections for milk are disabled.

NOTE: if the "block coffee" and "block milk" entries are set to NO for the 'WASH 1" cycle, the machine will never be blocked.
In case of lack of washing operations, they will be recorded in the error "ARCHIVE" ("**i**" (**27**) button) as PARTIALS washing.

Preset automatic washing cycle (NSF) (no settable)

Function - after each milk cycle has terminated, the timer count-down starts (max 210'). At the end, "*AUTOMATIC WASHING*" appears on the display, with the time remaining before the wash cycle begins.



Activation - activation is automatic at the end of the remaining 30" seconds. During this stand-by time:

- if the coffee dispensing key is pressed, the timer count-down will start again from 30" seconds before the end of the dispensing cycle;
- if the milk/cappuccino dispensing key is pressed, the timer count-down will start from the set up time (210').
- If the (**28**) key is pressed, the automatic wash cycle will be performed immediately.

Selection block - always inactive. The wash cycle is performed even if the user does not intervene.

Wash type - with milk or water, completely automatic.

Special conditions

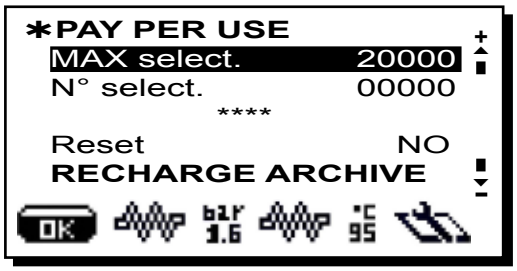
1) with each washing cycle with detergent (at a preset time) or daily washing cycle:
In this case, the entire circuit is washed. Therefore, during the first milk dispensing procedure, the circuit is considered free of residual milk and the timer (210') countdown is not launched.

2) each time the machine is switched off while the timer countdown (210') is underway:
when the machine is switched on again, if 210' have passed, once the machine reaches its operating temperature, the preset automatic washing cycle is launched and cannot be stopped.

8. Pay per Use

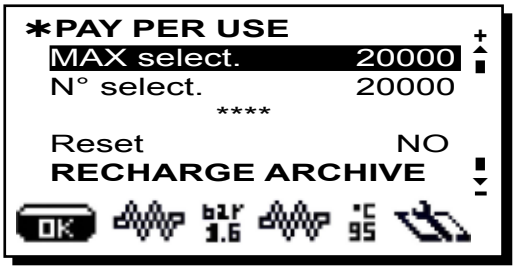
This function makes it possible to control the beverages made with ground coffee. It is activated when a personal numeric code (composed of 4 numbers) is inserted during the initialization phase with standard machine data.

After the function is activated, you must access the "**PAY FOR USE**" parameter in the configuration menu. Insert your personal code on the line with the asterisks * and insert the maximum number of dispensed beverages at the entry "*MAX select.*":



The number of dispensed beverages can be set between 0 and 65,000, with increments of 10.

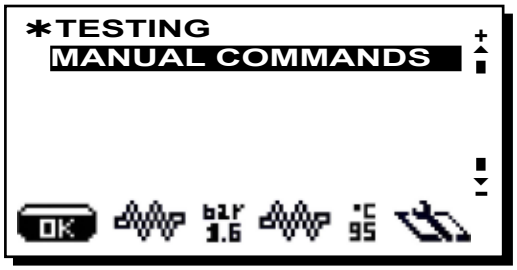
To enable the count, perform a reset (RESET = YES); the entry "*N° select*" is the same number as the "*MAX select*" entry:



From this moment on, after each coffee beverage dispensed, the number associated with the "*N° select*" entry is decreased by 1 unit for a single coffee and 2 units for a double coffee.
When the number 250 is reached, after each beverage dispensed the display screen shows the remaining number of beverages before the coffee-based beverages selection is blocked.
Beverages not made with ground coffee can still be dispensed.

To enable coffee-based selections again, you must recharge using the same method described above. Each operation of this type is stored in the "*Recharge archive"* entry.

9. Test menu



MANUAL CONTROLS – permit parts to be manually operated using the "**+**" (**30**) and "**-**" (**31**) keys (see paragraph "*Manual control panel*")

Manual control panel

Press the **PRG** (**29**) key on the "MANUAL COMMANDS" line, the following panel will appear on the display:

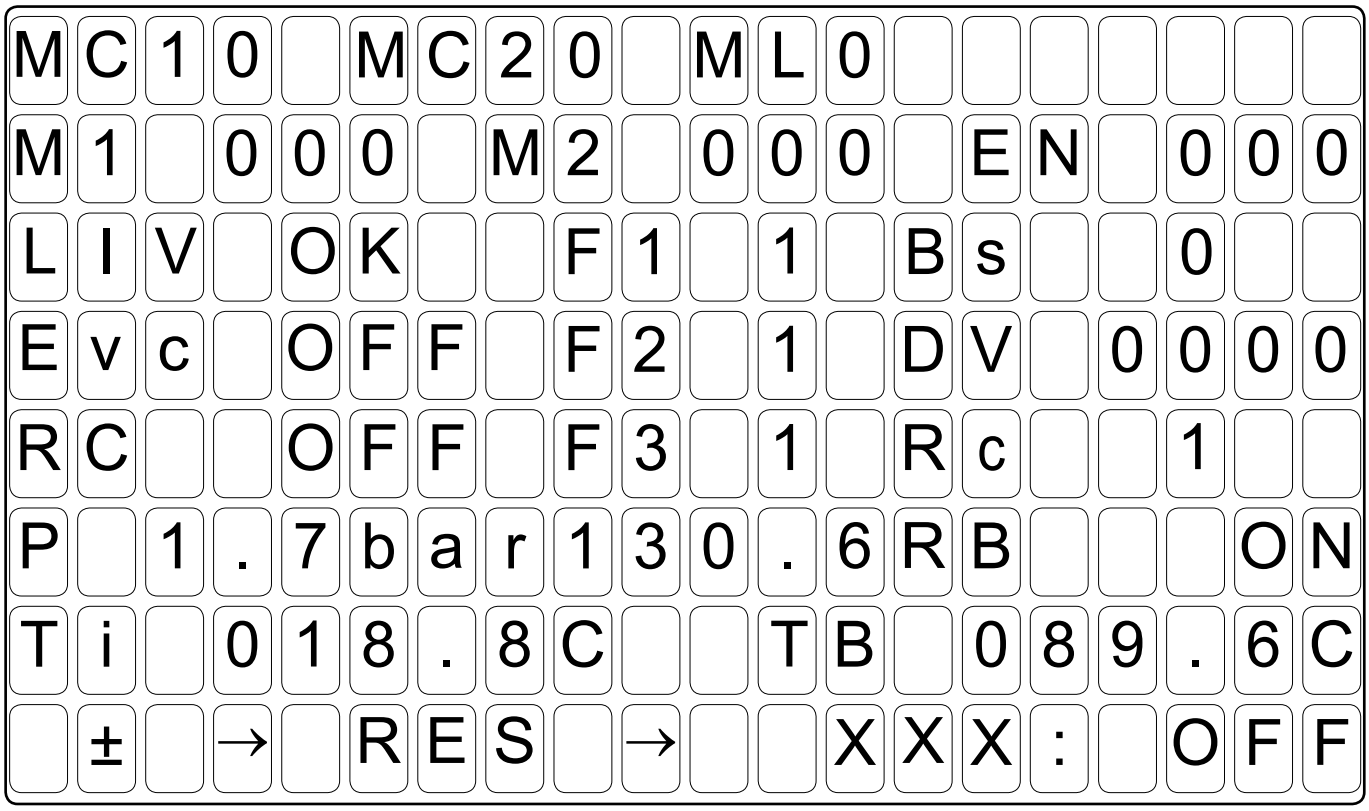
Panel 1

M	C	1	1		M	C	2	1		M	L	1						
M	1		0	0	0		M	2		0	0	0		E	N		0	0	0
L	I	V		O	K			F	1		1			B	s			0		
E	v	c		O	F	F		F	2		1			D	V		0	0	0	0
R	C			O	F	F		F	3		1			R	c			1		
P		1	.	7	b	a	r	1	3	0	.	6	R	B					O	N
T	i		0	1	8	.	8	C			T	B		0	8	9	.	6	C	
	±		→		P	R	G		→			X	X	X	:		R	E	S	

- Press "**+**" (**30**) or "**-**" (**31**) to display the various components;
- Press **PRG** (**29**) to select the component to move and to switch to the next panel M2;
- Press **RES** (**24**) to quit manual mode.

English

Panel 2



- Press "**+**" (**30**) or "**-**" (**31**) to activate the components, if they have a direction, use "**+**" (**30**) and "**-**" (**31**) to alternate the activations (+Lh/-Rh or +Up/-Down, +Widen/-Narrow the grinders).
- Press **RES** (**24**) to return to panel M1.

Legend

1. **F1** Unit limit switch: middle 0/1*
   F2 Unit limit switch: high 0/1*
   F3 Unit limit switch: low 0/1*

   *1, limit switch in position

2. **MC...** "No coffee" sensor (1=no coffee)
   ML "No milk" sensor (1=no milk)
   M... Grinder counter
   EN Group Encoder
   LIV Water level in boiler
   Bs Tray
   Dv Volumetric meter, displays incremental count, zeroed on entry of M1 menu
   RC Service Boiler resistance
   Rc Grounds drawer
   P Boiler pressure, displayed in "bar" or "psi".
   RB Boiler resistance
   Ti CPU temperature
   TB Boiler temperature, in C° (or F°)

3. **xxx** defines the moving part that can be accessed.
   Here is the table of symbols used to define the moving parts that can be accessed:

   MR motor unit ratiomotor
   Mav Coffee suction fan
   Ecv2 Not active
   Ech2 Not active
   MMx2 Not active
   Mds2 Soluble 2 dispenser motor
   Echv Not active
   Echa Water soluble solenoid valve
   MMx Soluble mixer motore
   Mds Soluble 1 dispenser motor
   Esc Service boiler water outlet solenoid valve
   El Cappuccino maker wash cycle solenoid valve
   Ets Steam solenoid valve *
   Ear Air solenoid valve
   Em Milk solenoid valve
   Evc Boiler load solenoid valve
   Eac Hot water solenoid valve
   G Coffee dispensing solenoid valve
   MP Pump motor
   MM2 Grinder 2 motor
   MM1 Grinder 1 motor
   Mpl Milk pump motor

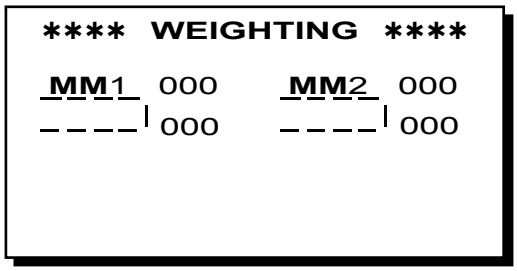
   Parts * are applied only in some product configurations.

10. Weighting

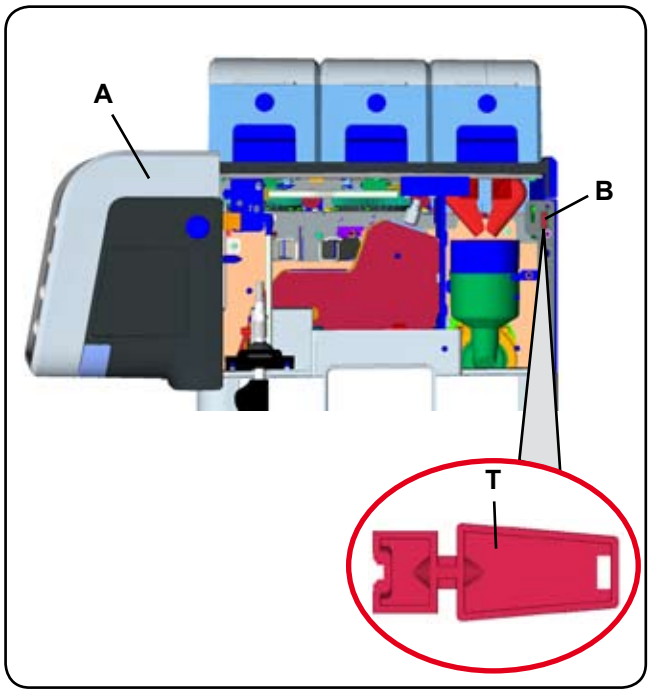
This menu permits the weighing of the ground coffee.



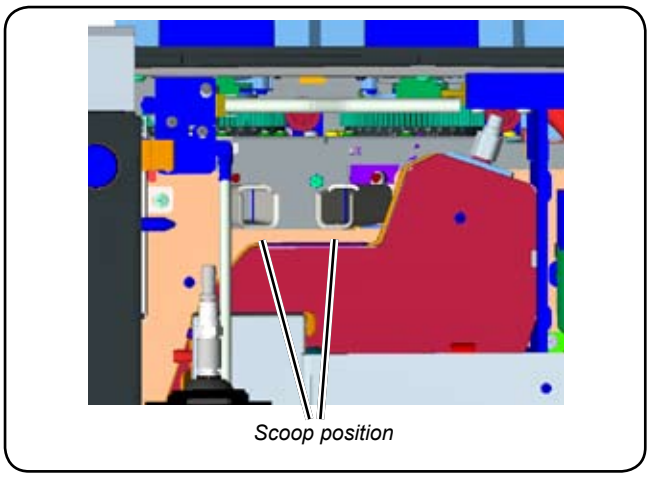
When the **PRG** (**29**) key is pressed, the following will appear on the display:



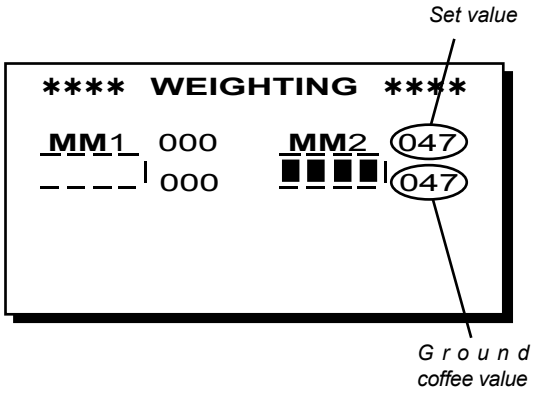
After opening the control panel (**A**), the power supply is switched off. Insert the technical key (**T**) in the special slot (**B**) to restore normal functioning:



Place the provided coffee scoop next to the ground coffee chute and press the selection key that needs checking.



After the grinding phase, the following will appear on the display:



The value set in the test menu and the ground coffee value must be the same.

During the grinding phase, make sure that the ground coffee does not slide off the scoop.
Once the grinding phase has ended, remove the scoop from the machine and weigh the amount of ground coffee on an accurate scale. Note: To obtain the real weight, we recommend performing the coffee grinding phase between 3 and 5 times and then calculating the average.
Once the weighing process is concluded, press the **RES** (**24**) key 2 times in a row to bring the unit to the standby position and to exit the programming menu.

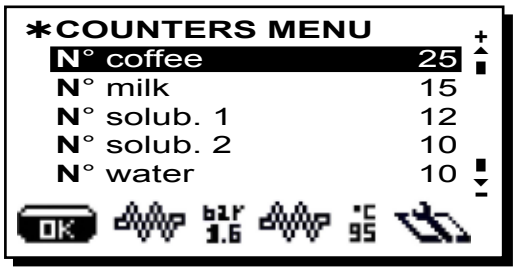
English

11. DATA menu: COUNTERS

Once you have entered the programming menu, access the DATA MENU, pressing the "**i**" (**27**) key. The following will be displayed:



Use the "**+**" (**30**) and "**-**" (**31**) keys to position the cursor on the COUNTER line, then press the **PRG** (**29**) key. The following will appear on the display:

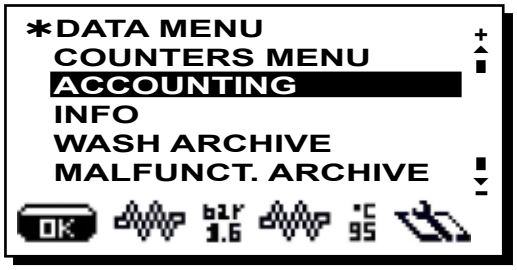


Parameters calculated are:
- ***N. coffee*** (number of coffee beverages)
- ***N. milk*** (number of milk beverages)
- ***Soluble 1*** (number of soluble 1 beverages);
- ***Soluble 2*** (number of soluble 2 beverages);
- ***N. water*** (number of times water is dispensed)
- ***N. steam*** (number of times steam is dispensed using the turbosteam function)
- ***N. steam + air*** (number of times steam and air are dispensed using the turbosteam function)
- ***N. tot coffee*** (total number of coffee beverages)
- ***N. cycles*** (total number of cycles performed)
- ***MM1*** (number of grinding phases performed by the 1 grinder)
- ***MM2*** (number of grinding phases performed by the 2 grinder).

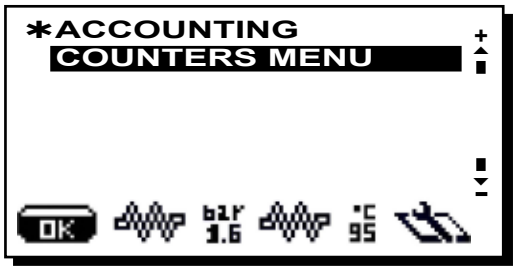
Counters can be zeroed by aligning the cursor on the selected entry, pressing the **PRG** (**29**) key, and then pressing the "**+**" (**30**) or "**-**" (**31**) key.

Note: Parameters that cannot be zeroed are:
- ***N. tot coffee***
- ***N. cycles***

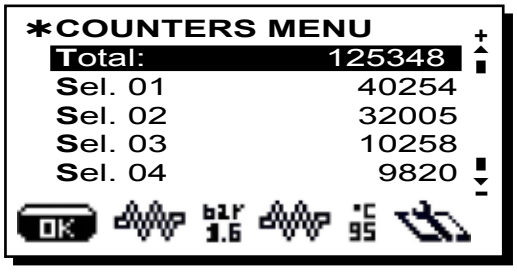
12. DATA menu: ACCOUNTING



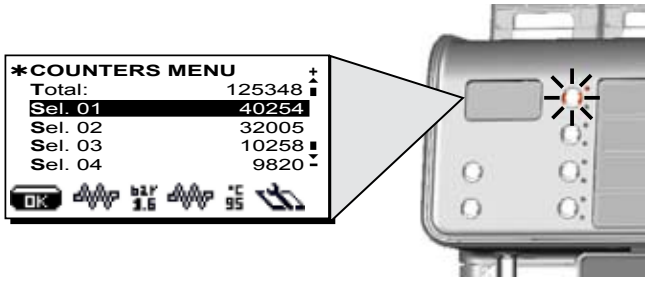
Use the "**+**" (**30**) and "**-**" (**31**) keys to position the cursor on the ACCOUNTING line, then press the **PRG** (**29**) key. The following will appear on the display:

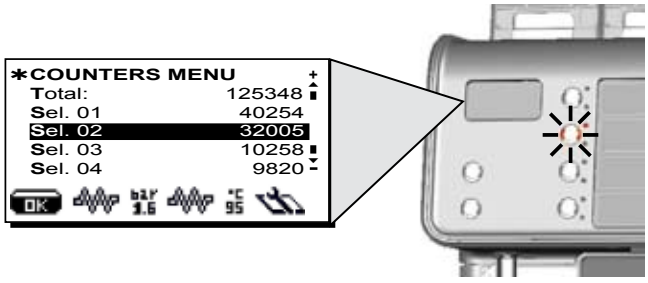


Pressing again the **PRG** (**29**) key, on the display will appear the number of all dispensings performed and the number of dispensing for each selection key:



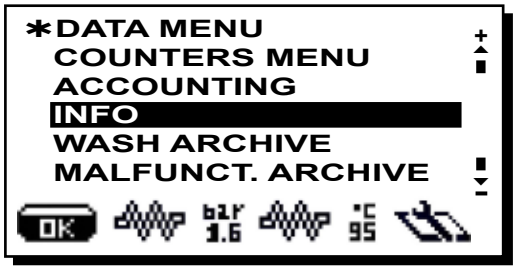
Placing the cursor on the various selections, the led associated to the key remains ignited:





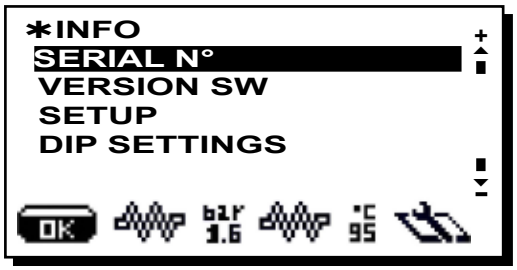
Note: If the machine has no counting system, the total number and numbers of the selections made are zeroed with the *Counting* and *Director* cards or with Dipswitch 4 in the ON position

13. DATA menu: INFO

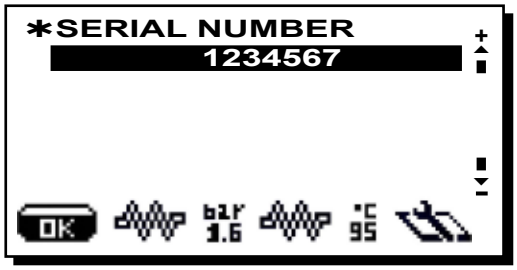


Serial number

Use the "**+**" (**30**) and "**-**" (**31**) keys to position the cursor on the INFO line, then press the **PRG** (**29**) key. The following will be displayed.

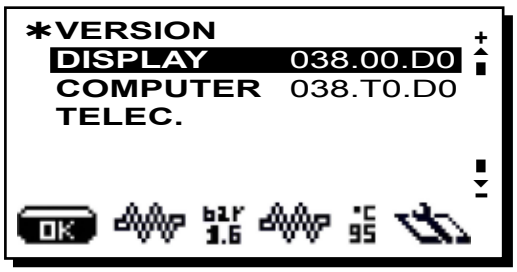


Press the **PRG** (**29**) key on the "serial n." line. The following will appear on the display.

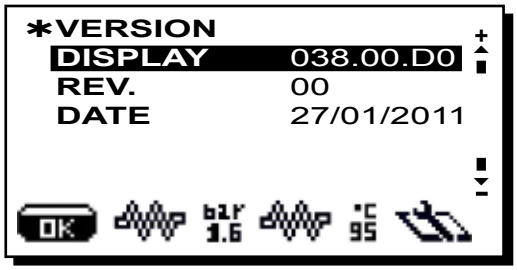


Version

The sub-menu of the Version entry shows the memory display version and, if present, also the remote control:

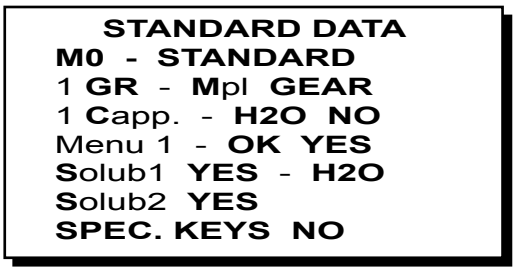


When the **PRG** (**29**) key is pressed when the cursor is on each of the two lines, besides showing the version, it also displays the data for the revision and memory date.



Setup

The “Setup” entry displays the setup settings introduced during the Data Standard insertion phase:



Entering Standard Data

Before performing this operation, switch off the machine and position **dipswitch 1** on display screen = **ON**, then switch on the machine.
If the procedure described above is not performed (dip1=ON), this message will appear on the display:



When inputting the Standard Data, you are prompted to input data regarding model and type of machine.

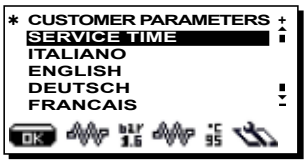
- ***CONFIGURATION:*** STANDARD, SELF 1, SELF 2;
- ***$H_2$0:*** water from delivery spout, YES / NO;
- ***TYPE:*** coffee, 1 Cappuccino;
- ***PIPE:*** type of pipe, OFF (disable), AS (turbosteam), VAP (steam), H_2O (water);
- ***SPECIAL KEY:*** YES / NO.
- ***PAY PER USE:*** YES / NO;
- ***SOLUBLE 1:*** soluble 1 beverage, YES / NO;
- ***SOLUBLE 2:*** soluble 2 beverage, YES / NO;
- ***MENÙ:*** different types of drinks,1/2.

Using the **"+"** (**30**) and “**-**” (**31**) keys, select the parameters, **then press the PRG** (**29**) **to confirm the details.**

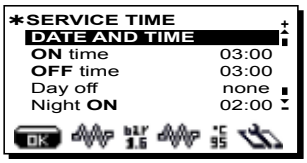
After this operation, switch off the machine and reset the **dipswitch 1** display screen to **OFF**.

Then:
- Switch on the machine again
- Reset date and time, and reset the desired language, if needed:

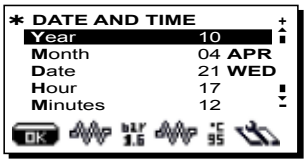
press (***34***) *key:*



press the PRG (***29***) *key:*



press again the PRG (***29***) *key:*

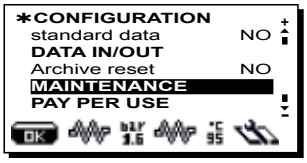


- reset maintenance parameters:

press the PRG (***29***) *key:*



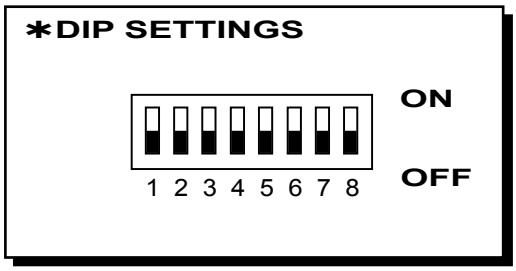
press again the PRG (***29***) *key:*



- zero the error and wash log.

Dip settings

The “dip setting” entry displays the dipswitch settings.

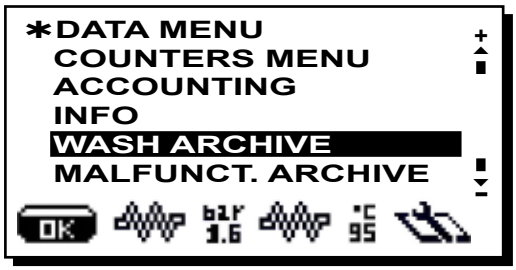


Under standard conditions, the dip-switches are positioned on OFF.

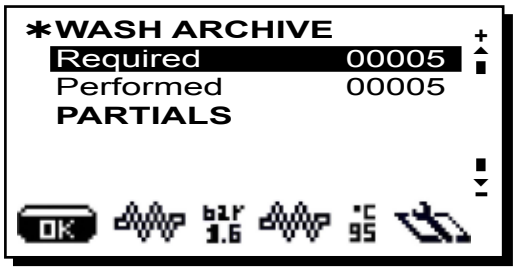
- DIP 1 = OFF - ON Input of standard data
- DIP 2 = OFF
- DIP 3 = OFF - ON Simulation of engineer's card
- DIP 4 = OFF - ON Simulation of bookkeeping's card
- DIP 5 = OFF - ON allows keys sequence to enter programming
- DIP 6 = OFF
- DIP 7 = OFF
- DIP 8 = OFF

For more details, please consult the technical manual at the "Setting - CPU Dip-Switch" paragraph.

14. DATA menu: WASH ARCHIVE



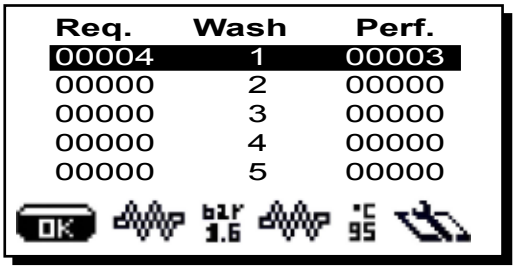
Press the **PRG** (**29**) key, the following message appears on the display:



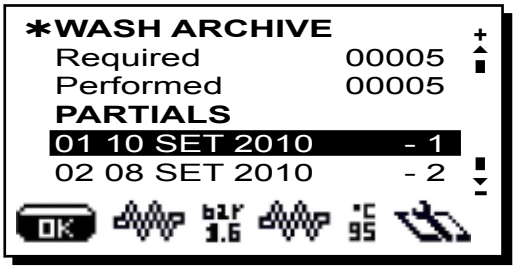
The parameters for the WASH ARCHIVE log that can appear on the display are:

- **Requests**: number of wash cycles that have been requested by the machine.
- **Executed**: number of wash cycles that were performed within the timeout time of 60'.
- **PARTIALS**: in this parameter are collected all the relevant details of the 5 washing cycles: wash cycles requested by the machine, wash number, number of washing cycles executed.

Pushing the **PRG** (**29**) button when the cursor is on the "PARTIALS" line, on the display will appear:



NOTE: If the wash cycles requested occur during the timeout, under the entry "PARTIALS" you will also see a list of the last 10 "failed" wash cycles, with progressive number, date and wash number.
The first line refers to the most recent date.

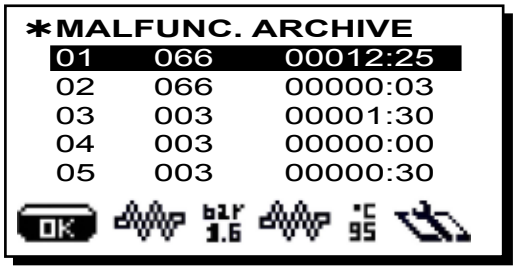


Use the **"+"** (**30**) and “**-**” (**31**) keys to scroll through the failed wash cycles, then press the **RES** (**24**) key to pass to another menu.

15. DATA menu: MALFUNCTIONS ARCHIVE

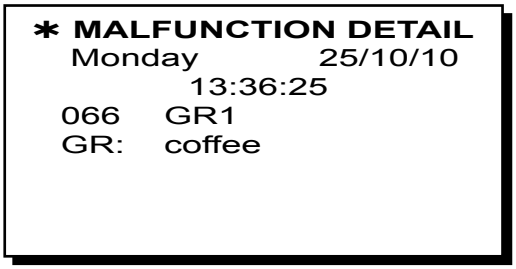


If the **PRG** (**29**) key is pressed when the cursor is on the “error log” line, the following appears on the display:



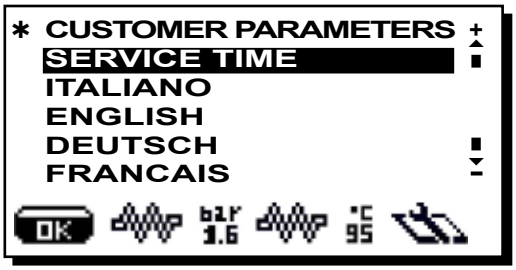
The figures appearing after the “error code” indicate, in hours and minutes, the time that has passed since the last recorded error.

If the **PRG** (**29**) key is pressed again, the details page is accessed. The following appears on the display:
- day and hour when the error occurred
- machine status when the error occurred



16. Customer parameters menu

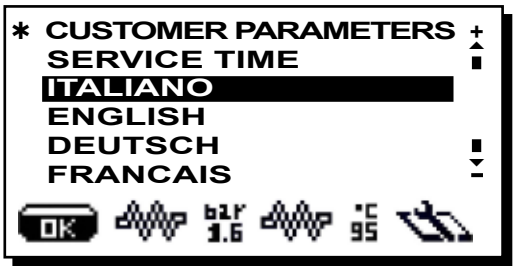
To access "Customer parameters" press (**34**) key; the following message will appear on the display:



Language selection

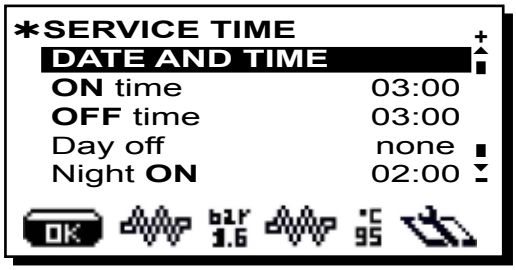
To display the messages in a different language from that set, after entering into Programming mode, position the cursor on the desired language by pressing the "**+**" (**30**) and "**-**" (**31**) keys and then pressing the **PRG** (**29**) key. The machine will restart with the messages provided in the selected language.

The display (**5**) provides a choice of the following languages.:
Italian, English, German, French, Spanish, Portuguese, Dutch, Japanese and Russian.



Service time menu

Pressing the **PRG** Ⓟ (**29**), the following message will appear on the display:



The following service time parameters can be modified:
- ***ON time*** (time the machine switches on);
- ***OFF time*** (time the machine switches off);
- ***day off*** (day on which the enterprise is closed);
- ***Night ON*** (start time for evening beverage price: only when payment system is connected);
- ***Night OFF*** (end time for evening beverage price: only when payment system is connected);
- ***Wash 1*** (request - every 24 hrs - at the programmed hour; cannot be disabled);
- ***Wash 2 ÷ 5*** (hour of scheduled washes from 2 to 5)

General indications
If there is no day off (i.e. the enterprise never closes), enter “none” for the “day off” item.
Enter the same time for the “ON time” and “OFF time” parameters (for example:

ON time 22:00
OFF time 22:00)

if the automatic switch on/switch off function is not required and you wish to manually switch the machine on and off.

"WASH 1" AND "WASHES 2 ÷ 5"
These are scheduled washes that are independent of the wash cycles related to the switching on and switching off phases.
At the set hour, the messages "EXECUTE WASHING GROUP", "EXECUTE WASHING MILK CIRCUIT" appear, according to the programmed washing.
After having positioned the cursor on the line to be changed and after having pressed the **PRG** Ⓟ (**29**) key, change the value using the "**+**" Ⓐ (**30**) and "**-**" Ⓥ (**31**) keys. Then press the "**OK**" key to confirm.
Repeat the above operations to change the other wash scheduling times.

"Wash 1"
When this function is requested, a long wash cycle is performed (milk circuit and coffee circuit) as described in the "Cleaning operations" paragraph of the user manual.

NOTE: Wash 1 cannot be disabled. It is requested daily at the programmed hour, and always within 24 hours.

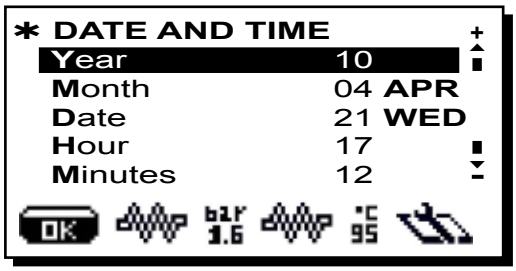
"Washes 2 ÷ 5"
If the set hour for these wash cycles occurs when the machine is switched off, the request will be canceled.

NOTE: Set OFF against the time so as to not activate these wash cycles.
OFF is displayed press the "**-**" Ⓥ (**31**) key the indicated time is "00:00".

For more details, please consult at the "Configuration menu - wash options" paragraph.

Date and time

To modify the date and hour, press the **PRG** Ⓟ (**29**) key for the corresponding line. The following message will appear:



Use the "**+**" Ⓐ (**30**) and "**-**" Ⓥ (**31**) keys to move the cursor (black line) to the entry to be modified, then press the **PRG** Ⓟ (**29**) key. The cursor will turn into an arrow → and it becomes possible to change the number for the selected entry by using the "**+**" Ⓐ (**30**) and "**-**" Ⓥ (**31**) keys.
Once the operation is completed, press the **RES** Ⓡ (**24**) key to confirm the data.
Note: the cursor changes back to black line.
Repeat the operation described above to modify other parameters.

17. Defects - Malfunctions (1/2)

MALFUN. Code	DESCRIPTION	POSSIBLE CAUSES	SOLUTIONS
002	Coffee group piston descent timeout during the repositioning phase after one minute in the grinding position.	• The motor group is malfunctioning • There is a foreign body inside the chamber. • The tray has been removed. • The coffee grounds drawer has been removed	
003	The coffee group piston did not reach the dispensing zone, but the compression sensor has intervened	• The coffee group is malfunctioning • The ground coffee dose is more than maximum amount allowed. • There is a foreign body inside the chamber	
007	The coffee group piston has reached the dispensing zone, but the positioning timeout has intervened because the compression sensor and the limit switch sensor did not commute.	• The fastening screw is loose and the group is being pulled in an abnormal way by the motor crank. • The compression sensor is malfunctioning. • The limit switch signal is lost	
008	**The coffee group does not move**	• The coffee group motor is malfunctioning. • The movement is requested while the coffee grounds drawer is absent. • The movement is requested while tray is absent	
009	The coffee group piston has not reached the dispensing zone and the positioning timeout was reached because the compression sensor did not intervene.	• The compression sensor is malfunctioning. • The limit switch signal is lost. • The fastening screw is loose and the group is being pulled in an abnormal way by the motor crank	
011 021	**MM1 grinder encoder impulses are not read** **MM2 grinder encoder impulses are not read**	• The grinder is blocked. • The grinder is malfunctioning. • The encoder is malfunctioning. • The encoder photocell was incorrectly installed	
025	**No power to group, solenoid valve, milk pump.**	• The switching power supply is malfunctioning. • The wiring is disconnected. • There has been a power outage.	
041	**The overcurrent alarm sounds when the milk pump starts**	• There is excessive stress during functioning. • The gear pump (MRL/MRC) is malfunctioning	
051	**The boiler temperature is not working**	• The sensor is electrically disconnected. • The sensor is malfunctioning. • There is a CPU card malfunction	
052	**Boiler heating timeout**	• The resettable safety thermostat has intervened. • The heating element has been disconnected. • The Triac card is malfunctioning. • The heating element wiring and/or Triac control is disconnected	
056	**The boiler temperature sensor is not working.** Value is out of range.	• The temperature sensor is malfunctioning. • The temperature sensor wiring is disconnected. • There is a CPU card malfunction	

17. Defects - Malfunctions (2/2)

MALFUN. COD	DESCRIPTION	POSSIBLE CAUSES	SOLUTIONS
057	**Heating boiler timeout**	• The resettable safety thermostat has intervened. • The heating element has been disconnected. • The Triac card is malfunctioning. • The heating element wiring and/or Triac control is disconnected	
058	**Overpressure alarm in boiler**	• The Triac card is malfunctioning	
059	**Boiler filling timeout**	• The water supply has been cut off. • The EVC is malfunctioning or electrically disconnected. • The check valve is malfunctioning. • The check valve filter is dirty. • There is a CPU card malfunction.	
064	**The machine dispenses in limit switch position, without signaling compression**	• The ground coffee dose is below nominal value	
066	**No reading of coffee circuit volumetric counter pulses during the dispensing cycle**.	• The water supply has been cut off. • The volumetric counter is malfunctioning or is electrically disconnected. • The G solenoid valve is malfunctioning or is electrically disconnected. • The pump is malfunctioning (only in case of intake from reservoir) • The check valve filter is clogged. • The coffee group filters are clogged. • The coffee grounds are too fine	
067	No reading of coffee circuit volumetric counter pulses during the washing cycle.	• The water supply has been cut off. • The volumetric counter is malfunctioning or is electrically disconnected. • The G solenoid valve is malfunctioning or is electrically disconnected. • The pump is malfunctioning (only in case of intake from reservoir) • The check valve filter is clogged. • The coffee group filters are clogged	
068	The coffee group racks are unhooked, making the group unstable.	• The coffee grounds are too coarse, the infusion time is too long, or input group pressure is below 4 bar. • The group rack is malfunctioning. • The coffee group motor is malfunctioning	
070	**Wrong data reading by RAM clock or by EEPROM**	• There is a card malfunction	
071	**Dead clock buffer battery**	• Replace the battery	
098	**Error log and washing log reset**	• Initialization has begun for the error log and washing log structure	
099	**Default data loading**		

English

18. Abnormal functioning (machine and operator)

Coffee circuit

DESCRIPTION	POSSIBLE CAUSES	SOLUTIONS
The machine does not dispense the requested beverages	• The nominal boiler temperature has not been reached. • There is no coffee. • The coffee receptacles are closed or obstructed. • The group was not installed correctly. • The outlet tube from the group in the coffee dispenser nozzle was not installed correctly	
The coffee receptacle cannot be positioned correctly in the machine	• Remove any coffee grounds on the top panel of the machine or in the upper part of the grinders. • Check that the receptacle doors are closed. • Check that the receptacle blocking pin is in the “open” position.	
The group does not move correctly	• Check the correct installation of the group: the connecting rod button must be inserted in the crank slot. • The fastening pin must be correctly locked	
The beverage temperature is too low/too high	• The boiler temperature is incorrect. • The heating method is incorrect. • The safety thermostats have intervened. • The temperature probe is malfunctioning	
Ground coffee residues on the group and/ or on the main door	• The MM1/MM2 coffee nozzles are unprotected. • The coffee grounds are ground too coarsely	
Bubbles forming and/or bad texture	• Air is seeping from the dispensing nozzle. • There are water residues inside coffee circuit tubes. The tubes are incorrectly lodged inside the machine	
Uneven coloring	• There are coffee residues inside the tubes after dispensing. Perform the coffee circuit washing cycle	
No or partial dispensing from nozzle	• There are problems with the water supply/ inlet. • There is a volumetric counter anomaly. • The tube exiting the dispensing group is partially clogged	
Water dripping from dispenser nozzle (excluding washing cycle)	• The coffee receptacles are empty. • The coffee receptacles are clogged/ blocked. • Inefficient machine discharge: Check that circuit is clean and intact	

18. Abnormal functioning (machine and operator)
Milk circuit

DESCRIPTION	POSSIBLE CAUSES	SOLUTIONS
The machine does not dispense the requested beverages	• The nominal boiler temperature has not been reached. • There is no milk. • The intake tube was incorrectly positioned in the milk container. • The milk intake tube is clogged/blocked. • The start settings are incorrect. • The gear pump is malfunctioning	
The milk and/or concentrated chocolate dosage are different from the nominal dose	• The air flow regulator is malfunctioning. • The gear pump PWM setting is incorrect. • The gear pump is malfunctioning. • The switching power supply output voltage ≠ 24.5 V	
Too low beverage temperature	• The EM solenoid valve anti-suction cycle failed. • The solenoid valve is malfunctioning or disconnected. • There are limescale deposits inside the heat exchanger	
Steam from the steam nozzle enters the refrigerator.	• There is no milk in the refrigerator. • The milk intake tube is clogged/blocked	
The milk temperature is too hot compared to set temperature; there is boiling inside the steam nozzle	• The milk temperature inside the refrigerator is higher than 5° C, the reference temperature for the machine setting. • The milk intake tube is clogged/blocked	
The milk is not frothed	• The EAR solenoid valve is malfunctioning or disconnected electrically	
The milk circuit remains full of products after dispensing	• The water supply is cut off. • The inversion setting is incorrect. • The EL solenoid valve is malfunctioning or disconnected	
There are water residues in the washing circuits after dispensing	• The inversion setting is incorrect. • The EL solenoid valve is malfunctioning or disconnected	
There is a combination of water/steam in the cup at the start of the dispensing cycle	• There is no water in the washing tray. • The milk intake tube is clogged/blocked	

18. Abnormal functioning (machine and operator)
Washing

DESCRIPTION	POSSIBLE CAUSES	SOLUTIONS
After the washing sequence starts, the machine remains in standby for almost a minute	• The steam boiler or water boiler has not reached the correct temperature/pressure	
Il lavaggio caffè dura più del normale	• The coffee filters may be clogged	
Fuoriuscita di vapore dal montalatte ed immissione di vapore all'interno del frigorifero.	• Esaurimento acqua contenuto nella vaschetta di lavaggio • Il tubo di aspirazione latte è ostruito/occluso	

18. Abnormal functioning (machine and operator)

Components

DESCRIPTION	POSSIBLE CAUSES	SOLUTIONS
There is dampness in the receptacles or inside the front panel	• The steam intake fan is malfunctioning • The back or front doors not closed properly	
The coffee grounds drawer has water inside	• The grinder settings for the coffee dose are incorrect • The drying temperature is too low • The top piston OR is worn	
The coffee grounds drawer has grounds underneath the group (left part)	• The ground coffee dose is higher than maximum dose allowed	
The dispensing group receptacle is clogged with coffee; the dispensing group is blocked and "full" of coffee. Total blockage of the tube can mechanically block the grinder blade.	• Triac grinder has short-circuited • The setting for the ground coffee dose is incorrect and higher than the maximum capacity of the coffee group	
The machine does not switch on	• The display panel is not closed correctly • There is no electrical power supply • The ON/OFF switch is off or malfunctioning	
The water boiler and steam boiler temperature do not increase	• The wiring is disconnected/malfunctioning • The safety thermostats have intervened • The Triac has short-circuited	
The display is off	• The display card is malfunctioning • The switching power supply is malfunctioning • The wiring is disconnected	
The programming keypad is not working	• The programming block is enabled • The programming keypad card key switch is malfunctioning • The wiring is disconnected	
The Selection keypad is not working	• The key on the keypad is disabled • The programming keypad card key switch is malfunctioning • The wiring is disconnected	
The LED key on the Selection keypad is not working	• The key on the keypad is disabled • The programming keypad card key switch is malfunctioning • The wiring is disconnected	
There is no lighting on the machine work surface	• The lighting LEDs are malfunctioning • The wiring is disconnected	
The Safety valve has intervened	• There is an anomalous reading by the boiler pressure sensor (tube blocked, sensor malfunction, etc.) • The boiler is flooded • The level sensor is malfunctioning	
There is liquid dripping from the machine base	• The seal on the draining tray connector is worn • The tray is incorrectly inserted in the machine	
There are noticeable variations in the temperature and quality of the beverages	• The dispenser nozzle is set at the incorrect height	
The beverages spill outside of the cups during dispensing	• The cups are incorrectly positioned	

18. Abnormal functioning (machine and operator)

Components

DESCRIPTION	POSSIBLE CAUSES	SOLUTIONS
Continuous removed tray warning	• The tray micro switches are malfunctioning • The wiring is disconnected	
Continuous removed coffee grounds tray warning	• The coffee grounds tray micro switches is stuck/malfunctioning • The wiring is disconnected	
When the tray is removed, liquid always drips from the outlet connector	• The connector seal is worn • The tray was removed after dispensing/ washing cycle without letting the system have time to correctly drain the fluids	

I AVVISI IMPORTANTI

ATTENZIONE! Questi capitoli del manuale sono ad uso del personale tecnico qualificato e autorizzato.

Togliere tensione alla macchina prima di eseguire tutte le operazioni (*).

GB IMPORTANT WARNINGS

WARNING! These chapters in the manual are to be used by qualified, authorized technical staff.

Switch off the power to the machine before performing these steps.

F AVIS IMPORTANTS

ATTENTION! Ces chapitres du manuel sont à l'usage du personnel technique qualifié et autorisé.

Débrancher la machine avant d'effectuer toutes les opérations.

D WICHTIGE WARNUNGEN

ZU BEACHTEN! Diese Kapitel des Handbuches wenden sich an qualifizierte und offiziell befugte Fachtechniker.

Vor Ausführung gleich welcher Arbeitsschritte die Spannungsversorgung der Maschine unterbrechen.

E ADVERTENCIAS IMPORTANTES

ATENCIÓN! Estos capítulos del manual son para su uso por parte del personal técnico cualificado y autorizado.

Desconectar la tensión de la máquina antes de efectuar todas las operaciones.

P AVISOS IMPORTANTES

ATENÇÃO! Estes capítulos do manual são para serem utilizados pelo pessoal técnico qualificado e autorizado.

Retirar a tensão à máquina antes de executar todas as operações.

(*) Gli interventi sul gruppo caffè richiedono operazioni da effettuare con macchina accesa.

(*) Any work performed on the coffee group must be done with the machine switched on.

(*) Les interventions sur le groupe de café requièrent des opérations devant être effectuées lorsque la machine est allumée.

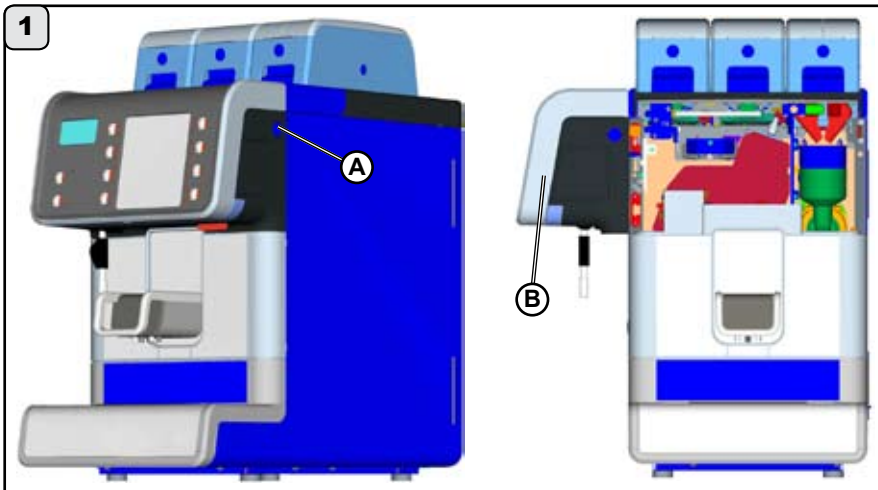
(*) Die auf die Kaffeeabgabeeinheit bezogenen Arbeitsschritte müssen bei eingeschalteter Maschine ausgeführt werden.

(*) Las intervenciones en el grupo café requieren operaciones que se tienen que efectuar con la máquina encendida.

(*) As intervenções no grupo café exigem operações a efectuar com a máquina acesa.

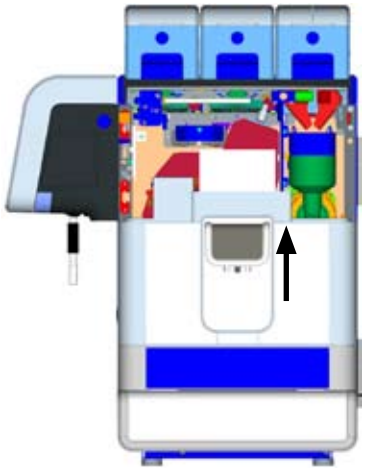
Apertura cruscotto, pannello frontale - Opening front panel
Ouverture du tableau de bord, du panneau frontal - Öffnen der Armaturentafel (Frontpaneel)
Apertura del panel de mandos, panel frontal - Abertura do quadro de comandos, painel dianteiro

1



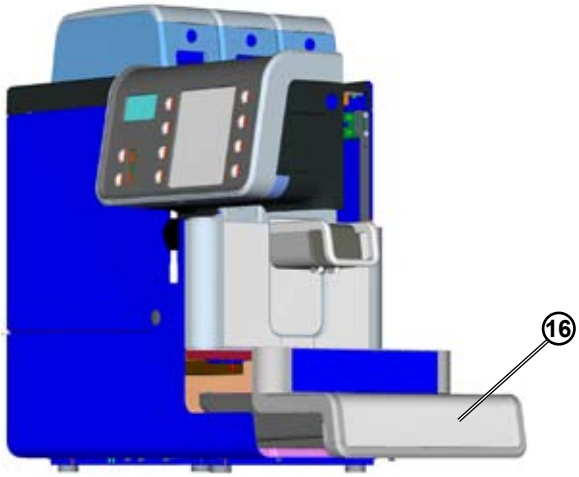
Aprire la serratura (**A**) e il cruscotto comandi (**B**).
Open the lock (**A**) and the control panel (**B**).
Ouvrir la serrure (**A**) et le tableau de bord (**B**).
Die Verriegelung (**A**) und die Armaturentafel (**B**) öffnen.
Abrir la cerradura (**A**) y el panel de mandos (**B**).
Abrir a fechadura (**A**) e o painel de comandos (**B**).

2



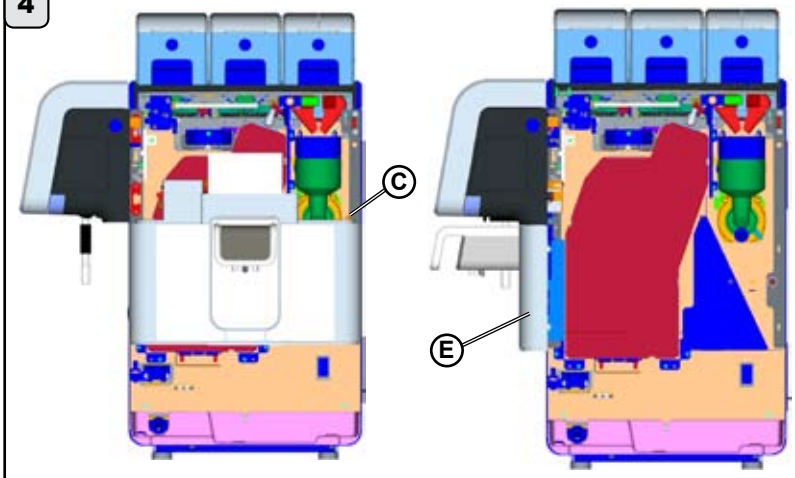
Alzare il becco erogatore (**1**). - Raise the dispensing nozzle (1).
Lever le bec de débit (**1**). - Das Ausflußstück (**1**) anheben.
Levantar la boquilla erogadora (**1**). - Levantar o bico distribuidor (**1**).

3



Rimuovere la bacinella (**16**). - Remove the tray (16).
Retirer la bassine (**16**). - Die Wanne (**16**) herausnehmen.
Desmontar la bandeja (**16**). - Remover o tabuleiro (**16**).

4



Premere il perno di chiusura (**C**) e aprire parzialmente il pannello frontale (**E**). Scollegare il tubo caffè dal becco erogatore e, se presenti, i tubi solubili e acqua dal becco, quindi aprire completamente il pannello frontale (**E**).

Press the closing pin (**C**) and partially open the front panel (**E**). Disconnect the coffee tube from the dispensing nozzle and, if present, the tubes for soluble beverages and water from the nozzle, then completely open the front panel (**E**).

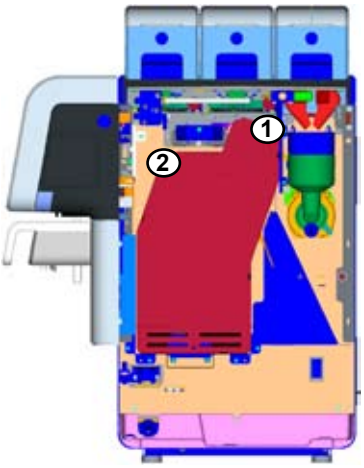
Appuyer sur le pivot de fermeture (**C**) et ouvrir partiellement le panneau frontal (**E**). Débrancher le tuyau de café du bec de débit et, si besoin est, les tuyaux des solubles et de l'eau du bec, puis appuyer complètement sur le panneau frontal (**E**).

Auf den Sperrstift (C) drücken und das Frontpaneel (E) teilweise öffnen. Die Kaffeeleitung und (sofern präsent) die Leitungen für lösliche Produkte und Wasser vom Ausflußstück abziehen, anschließend kann das Frontpaneel (E) ganz geöffnet werden.

Presionar el perno de cierre (**C**) y abrir parcialmente el panel frontal (**Y**). Desconectar el tubo de café de la boquilla erogadora y, si están instalados, los tubos de los productos solubles y del agua de la boquilla, por último abrir completamente el panel frontal (**Y**).

Premir o pino de fecho (**C**) e abrir parcialmente o painel dianteiro (**E**). Desconectar o tubo do café do bico distribuidor e, se presentes, os tubos dos solúveis e da água do bico, e por fim abrir completamente o painel dianteiro (**E**).

Rimozione gruppo caffè - Coffee group removal
Retrait du groupe de café - Ausbau Kaffeeabgabeeinheit
Desmontaje del grupo café - Remoção do grupo café



Per facilitare il riposizionamento del gruppo caffè accendere la macchina e premere il tasto "sleep mode" (SM); attendere qualche secondo, quindi rispegnere la macchina. Prima di procedere con lo smontaggio scollegare dal gruppo caffè i tubi idraulici e i connettori elettrici, posizionati rispettivamente nei punti 1 e 2 della figura a lato.

To make it easier to reposition the coffee group, switch on the machine and press the "Sleep Mode" key (SM). Wait a few seconds and then switch off the machine. Before removal, disconnect the water tubes and electric connectors from the coffee group positioned respectively at points 1 and 2 in the figure opposite.

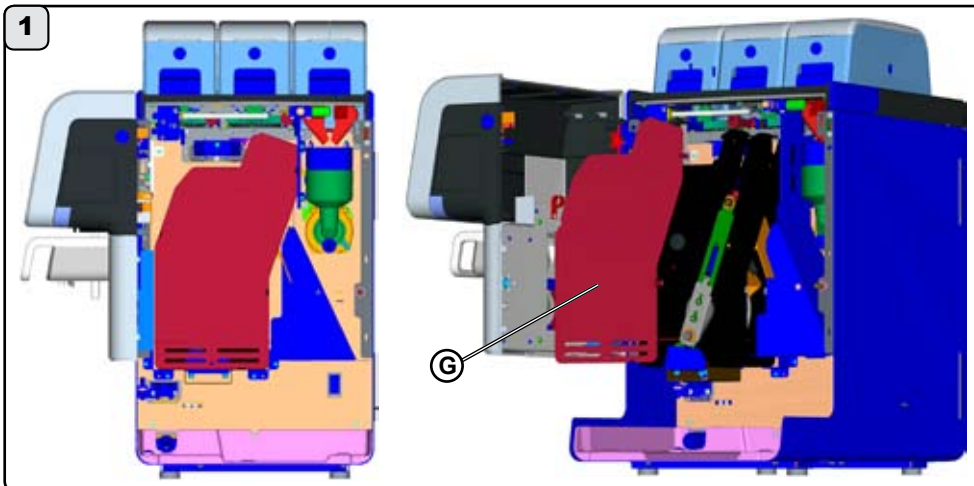
Pour faciliter le repositionnement du groupe de café, mettre la machine en marche et appuyer sur la touche "sleep mode" (SM); attendre quelques secondes puis éteindre à nouveau la machine. Avant de procéder au montage, débrancher du groupe de café les tuyaux hydrauliques et les prises électriques, placés respectivement aux points 1 et 2 de la figure ci-contre.

Zur Vereinfachung des erneuten Einbaus der Kaffeeabgabeeinheit die Maschine einschalten und die Taste "sleep mode" (SM) drücken; einige Sekunden abwarten und die Maschine erneut ausschalten. Vor dem Ausbau die Wasserleitungen und die elektrischen Steckverbinder (siehe Punkte 1 und 2 u der seitl. Abb.) von der Kaffeeabgabeeinheit abziehen.

Para facilitar la instalación del grupo café, encender la máquina y presionar la tecla "sleep mode" (SM); esperar unos segundos y luego apagar la máquina. Antes de realizar el desmontaje desconectar del grupo café los tubos hidráulicos y los conectores eléctricos, situados respectivamente en los puntos 1 y 2 de la figura que está al lado.

Para facilitar o reposicionamento do grupo café acender a máquina e premir a tecla "sleep mode" (SM); aguardar alguns segundos e seguidamente voltar a desligar a máquina. Antes de proceder à desmontagem desconectar do grupo café os tubos hidráulicos e os conectores eléctricos, posicionados respectivamente nos pontos 1 e 2 da figura ao lado.

1



Rimuovere la copertura (**G**) del gruppo.

Remove the cover (**G**) on the group. .

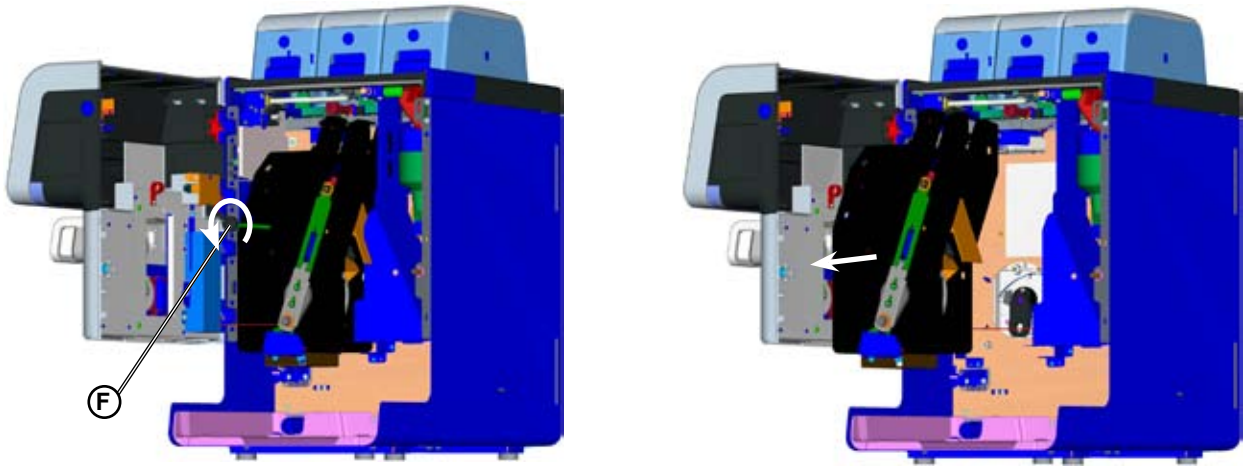
Retirer la couverture (**G**) du groupe.

Die Abdeckung (**G**) der Kaffeeabgabeeinheit abnehmen.

Quitar la cubierta (**G**) del grupo.

Remover a cobertura (**G**) do grupo.

2



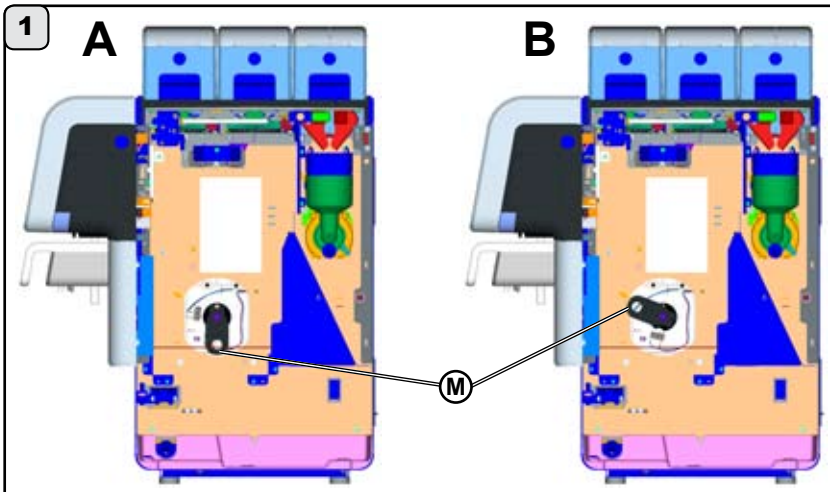
Svitare la vite di fissaggio (**F**) ed estrarre il gruppo. - Unscrew the fastening screws (**F**) and remove the group.

Dévisser la vis de fixation (**F**) et extraire le groupe. - Die Schraube (**F**) lösen und die Einheit herausnehmen.

Destornillar el tornillo de fijación (**F**) y desmontar el grupo. - Desaparafusar o parafuso de fixação (**F**) e extrair o grupo.

Riposizionamento gruppo caffè - Coffee group repositioning
Repositionnement du groupe de café - Erneuter Einbau der Kaffeeabgabeeinheit
Montaje del grupo café - Reposicionamento do grupo café

1



Qualora la manovella motore (**M**) non si trovasse nella corretta posizione (figura B), accendere la macchina e premere il tasto *"sleep mode"* (**SM**); attendere qualche secondo, quindi rispegnere la macchina.

If the motor crank (**M**) is not in the correct position (Figure B), switch on the machine and press the *"Sleep Mode"* key (**SM**). Wait a few seconds and then switch off the machine.

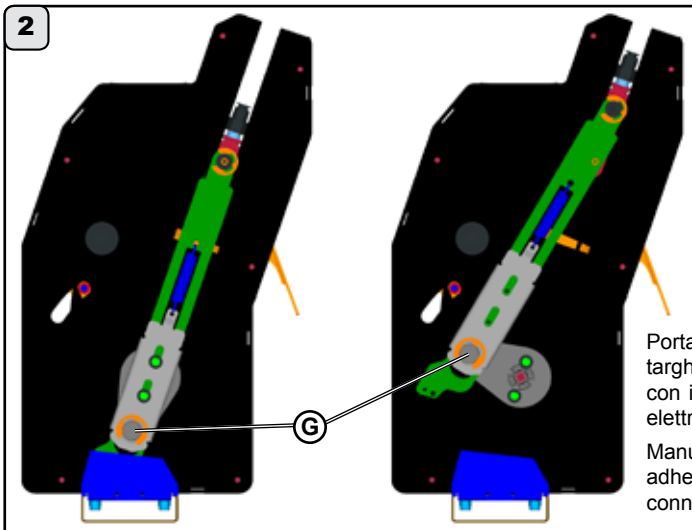
Au cas où la manivelle du moteur (M) ne se trouverait pas dans la bonne position (figure B), mettre la machine en marche et appuyer sur la touche *"sleep mode"* (**SM**); attendre quelques secondes, puis éteindre à nouveau la machine.

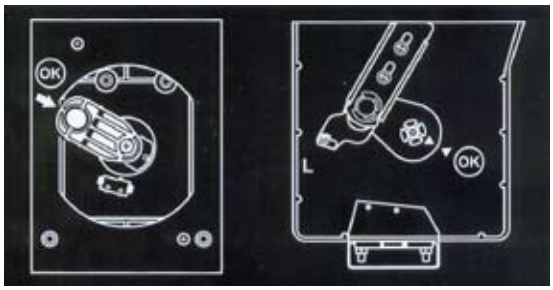
Sollte sich die Motorwelle (**M**) nicht in der korrekten Position befinden (Abb. B), die Maschine einschalten und die Taste *"sleep mode"* (**SM**) drücken; einige Sekunden abwarten und die Maschine erneut ausschalten

En el caso de que la manivela motor (**M**) no se encontrase en la correcta posición (figura B), encender la máquina y pulsar la tecla *"sleep mode"* (**SM**); esperar unos segundos y luego empujar la máquina.

Caso a manivela do motor (M) não se encontre na posição correcta (figura B), acender a máquina e premir a tecla *"sleep mode"* (**SM**); aguardar alguns segundos e por fim voltar a desligar a máquina.

2





Portare manualmente la manovella del gruppo (**G**) a fine corsa (attenersi alla targhetta adesiva posizionata all'interno della macchina); quindi procedere con il montaggio del gruppo e il collegamento di tubi idraulici e connettori elettrici.

Manually bring the group crank (**G**) to a stop (follow instructions on the adhesive plate inside the machine). Proceed with assembling the group and connecting the water tubes and electrical connectors.

Amener manuellement la manivelle du groupe (**G**) en fin de course (s'en tenir à la plaquette adhésive placée à l'intérieur de la machine); puis procéder au montage du groupe et au branchement des tuyaux hydrauliques et des prises électriques.

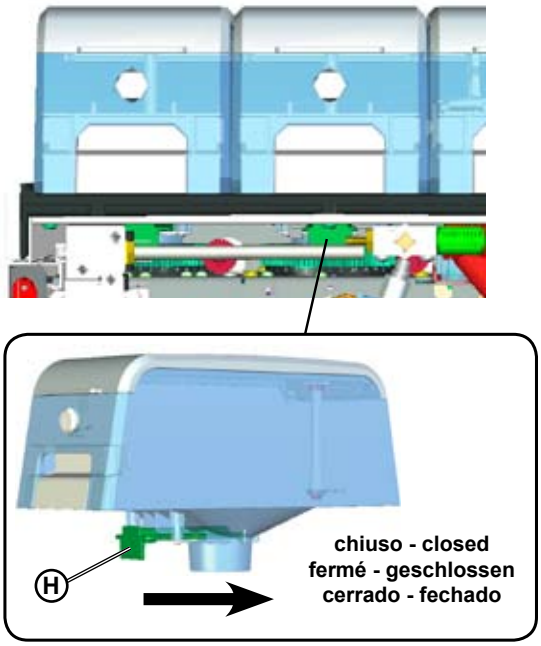
Die Welle der Einheit (**G**) bis zum Anschlag positionieren (siehe Klebeschuld im Innenbereich der Maschine); anschließend die Einheit einsetzen und die Wasserleitungen und die elektrischen Steckverbinder wieder anschließen.

Colocar manualmente la manivela del grupo (**G**) en el final de carrera (atenerse a la tarjeta adhesiva colocada en el interior de la máquina); luego realizar el montaje del grupo y la conexión de los tubos hidráulicos y los conectores eléctricos.

Deslocar manualmente a manivela do grupo (**G**) até alcançar o fim de corrida (respeitar o que consta da placa adesiva posicionada no interior da máquina); em seguida proceder à montagem do grupo e à conexão dos tubos hidráulicos e dos conectores eléctricos.

Rimozione tramogge caffè - Coffee receptacle removal
Retrait des trémies de café - Ausbau Kaffeetrichter
Desmontaje de las tolvas de café - Remoção das tremonhas do café

1



Spingere il dispositivo di chiusura tramoggia (**H**) verso il retro della macchina.

Push the hopper closing device (**H**) towards the back of the machine.

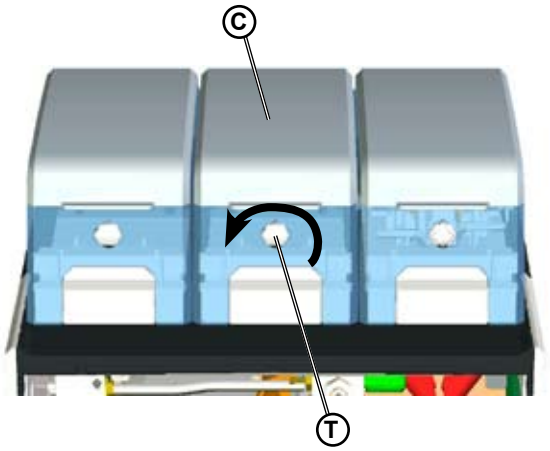
Pousser le dispositif de fermeture de trémie (**H**) vers l'arrière de la machine.

Schieben Sie den Trichterverschluß (**H**) nach hinten.

Empujar el dispositivo de cierre de la tolva (**H**) hacia la parte posterior de la máquina.

Empurrar o dispositivo de fecho da tremonha (**H**) em direcção da parte traseira da máquina.

2



Aprire la serratura della tramoggia (**T**) e rimuovere il coperchio (**C**).

Open the hopper lock (**T**) and remove the cover (**C**).

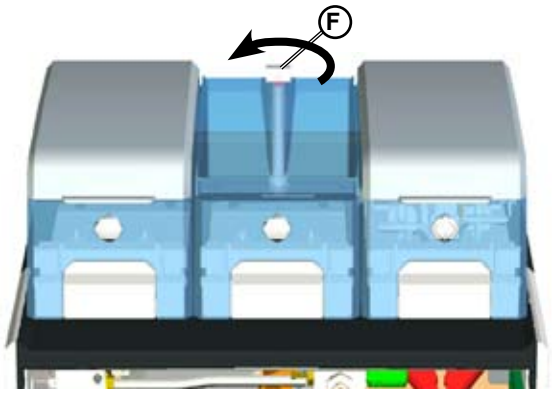
Ouvrir la serrure de la trémie (**T**) et retirer le couvercle (**C**).

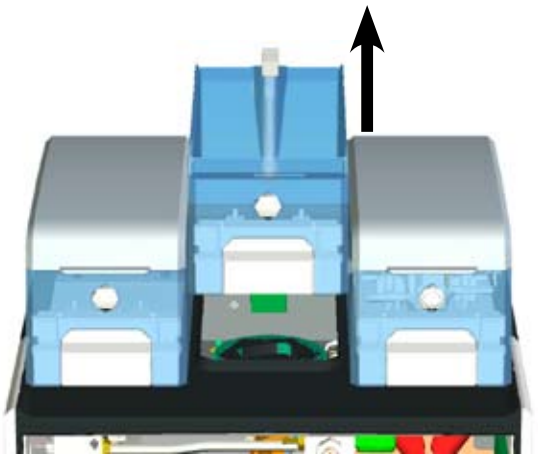
Entsperren Sie die Sperrvorrichtung des Trichters (**T**), und nehmen Sie die Abdeckung (**C**) ab.

Abrir la cerradura de la tolva (**T**) y quitar la tapadera (**C**).

Abrir a fechadura da tremonha (**T**) e remover a tampa (**C**).

3





Con l'ausilio di un utensile ruotare in senso antiorario il dispositivo di fissaggio (**F**) e separare la tramoggia caffè dalla macchina.

Use a tool to turn the fastening device (**F**) counter-clockwise and remove the coffee hopper from the machine.

Au moyen d'un ustensile, tourner le dispositif de serrage (**F**) dans le sens contraire des aiguilles d'une montre et séparer la trémie de café de la machine.

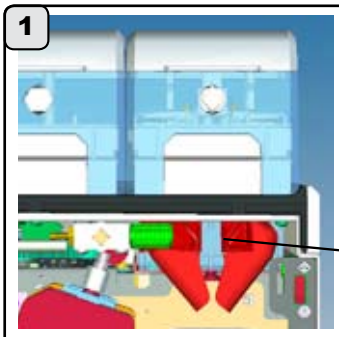
Drehen Sie die Vorrichtung zur Trichterbefestigung (**F**) mit einem geeigneten Werkzeug gegen den Uhrzeigersinn, und nehmen Sie den Trichter von der Maschine ab.

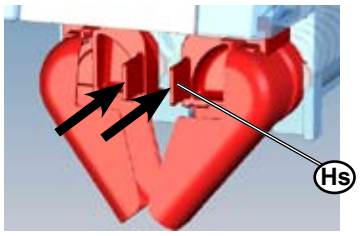
Con la ayuda de una herramienta girar en sentido contrario a las agujas del reloj el dispositivo de fijación (**F**) y separar la tolva de café de la máquina.

Com a ajuda de uma ferramenta rodear para a esquerda o dispositivo de fixação (**F**) e separar a tremonha do café da máquina.

Rimozione tramogge solubili - Solubles receptacle removal
Retrait des trémies de solubles - Ausbau Trichter lösliche Produkte
Desmontaje de las tolvas de los productos solubles - Remoção das tremonhas dos solúveis

1





chiuso - closed
fermé - geschlossen
cerrado - fechado

Spingere il dispositivo di chiusura tramoggia (**Hs**) verso il retro della macchina.

Push the hopper closing device (**Hs**) towards the back of the machine.

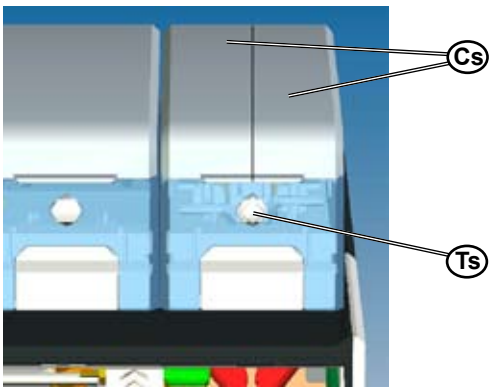
Pousser le dispositif de fermeture de trémie (**Hs**) vers l'arrière de la machine.

Schieben Sie den Trichterverschluß (**Hs**) nach hinten.

Empujar el dispositivo de cierre de la tolva (**Hs**) hacia la parte posterior de la máquina.

Empurrar o dispositivo de fecho da tremonha (**Hs**) em direcção da parte traseira da máquina.

2



Aprire la serratura della tramoggia (**Ts**) e rimuovere il coperchio (**Cs**).

Open the hopper lock (**Ts**) and remove the cover (**Cs**).

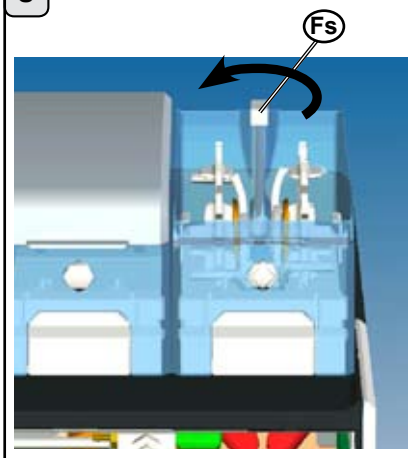
Ouvrir la serrure de la trémie (**Ts**) et retirer le couvercle (**Cs**).

Entsperren Sie die Sperrvorrichtung des Trichters (**Ts**), und nehmen Sie die Abdeckung (**Cs**) ab.

Abrir la cerradura de la tolva (**Ts**) y quitar la tapadera (**Cs**).

Abrir a fechadura da tremonha (**Ts**) e remover a tampa (**Cs**).

3



Con l'ausilio di un utensile ruotare in senso antiorario il dispositivo di fissaggio (**Fs**).

Use a tool to turn the fastening device (**Fs**) counter-clockwise.

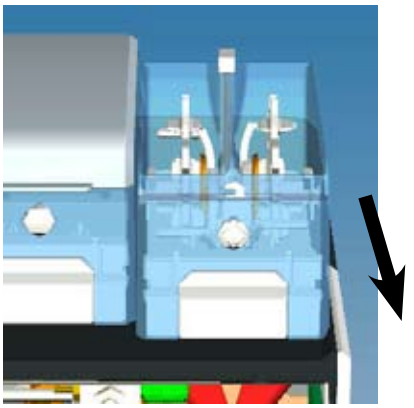
Au moyen d'un ustensile, tourner le dispositif de serrage (**Fs**) dans le sens contraire des aiguilles d'une montre.

Drehen Sie die Vorrichtung zur Trichterbefestigung (**Fs**) mit einem geeigneten Werkzeug gegen den Uhrzeigersinn.

Con la ayuda de una herramienta girar en sentido contrario a las agujas del reloj el dispositivo de fijación (**Fs**).

Com a ajuda de uma ferramenta rodear para a esquerda o dispositivo de fixação (**Fs**).

4



Spostare la tramoggia verso la parte anteriore della macchina.

Move the hopper towards the front of the machine.

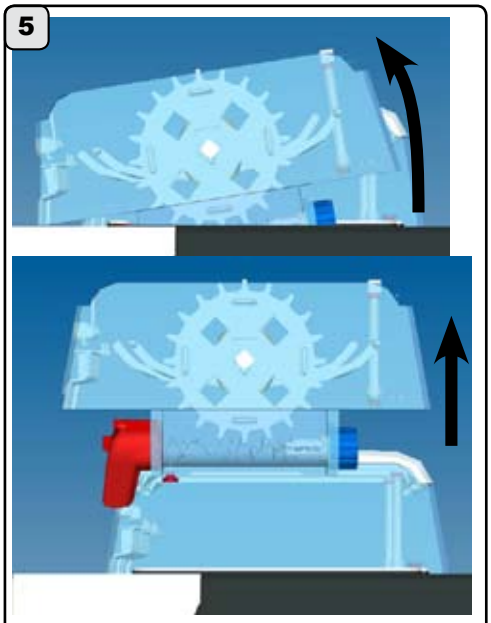
Déplacer la trémie vers la partie antérieure de la machine.

Schieben Sie den Trichter nach vorne.

Desplazar la tolva hacia la parte anterior de la máquina.

Deslocar a tremonha na parte dianteira da máquina.

5



Sollevare leggermente la parte posteriore della tramoggia e separare la tramoggia solubile dalla macchina.

Slightly raise the rear of the hopper and remove the solubles hopper from the machine.

Soulever légèrement la partie postérieure de la trémie et séparer la trémie soluble de la machine.

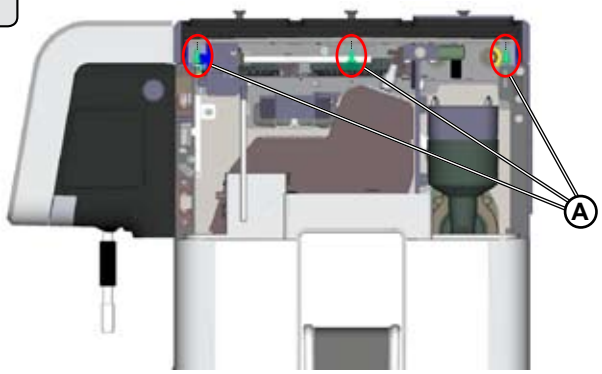
Heben Sie den rückseitigen Teil des Trichters leicht an, und nehmen Sie den Trichter für lösliche Produkte von der Maschine ab.

Levantar ligeramente la parte posterior de la tolva y separar la tolva para solubles de la máquina.

Levantar levemente a parte traseira da tremonha e separar a tremonha solúvel da máquina.

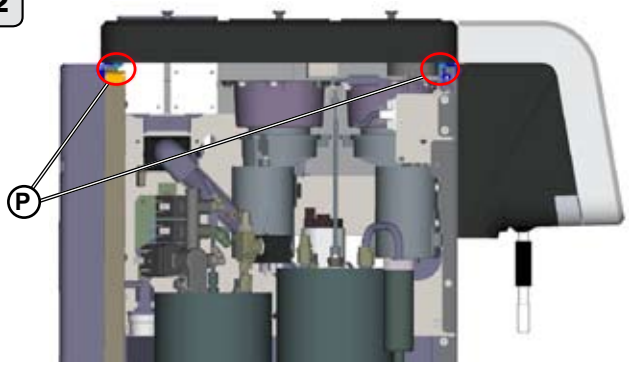
Rimozione gruppo macinini - Grinder group removal
Retrait du groupe des moulins - Ausbau Mahlwerk
Desmontaje del grupo molinillos - Remoção do grupo moinhos

1



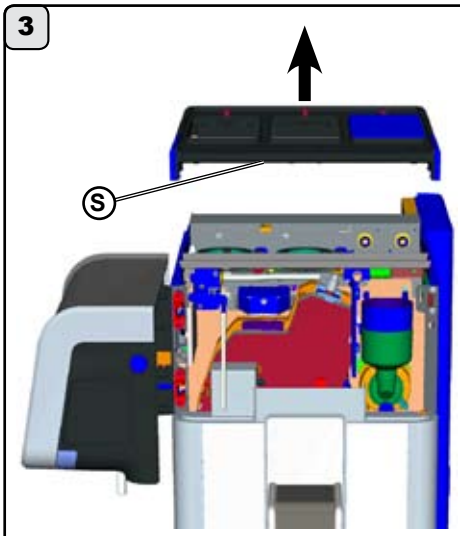
Rimuovere le 3 viti (**A**) situate nella parte anteriore della macchina.
Remove the 3 screws (**A**) on the front part of the machine.
Retirer les 3 vis (**A**) situées dans la partie antérieure de la machine.
Die 3 Schrauben (**A**) auf der Vorderseite der Maschine lösen.
Desmontar los 3 tornillos (**A**) situados en la parte anterior de la máquina.
Remover os 3 parafusos (**A**) situados na parte anterior da máquina.

2



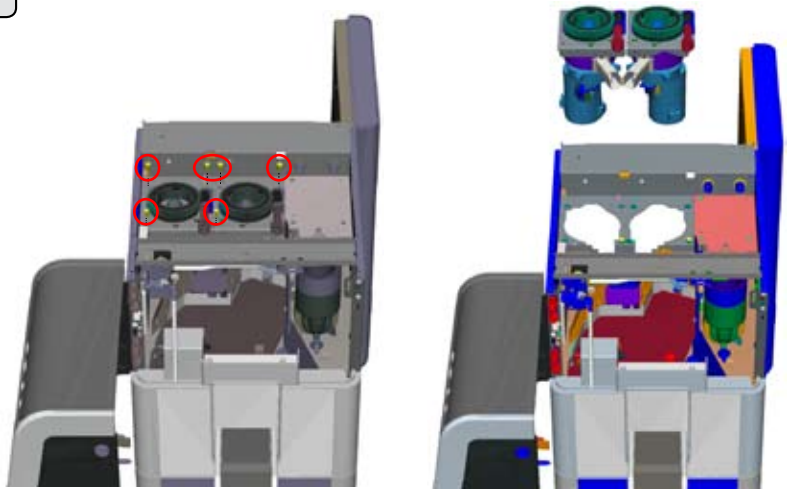
Rimuovere le 2 viti (**P**) situate nella parte posteriore della macchina.
Remove the 2 screws (**P**) at the back of the machine.
Retirer les 2 vis (**P**) situées dans la partie postérieure de la machine.
Die beiden Schrauben (**P**) auf der Rückseite der Maschine lösen.
Desmontar los 2 tornillos (**P**) situados en la parte posterior de la máquina.
Remover os 2 parafusos (**P**) situados na parte posterior da máquina.

3



Rimuovere il pannello superiore (**S**).
Remove the top panel (**S**).
Retirer le panneau supérieur (**S**).
Das obere Paneel (**S**) abnehmen.
Desmontar el panel superior (**S**).
Remover o painel superior (**S**).

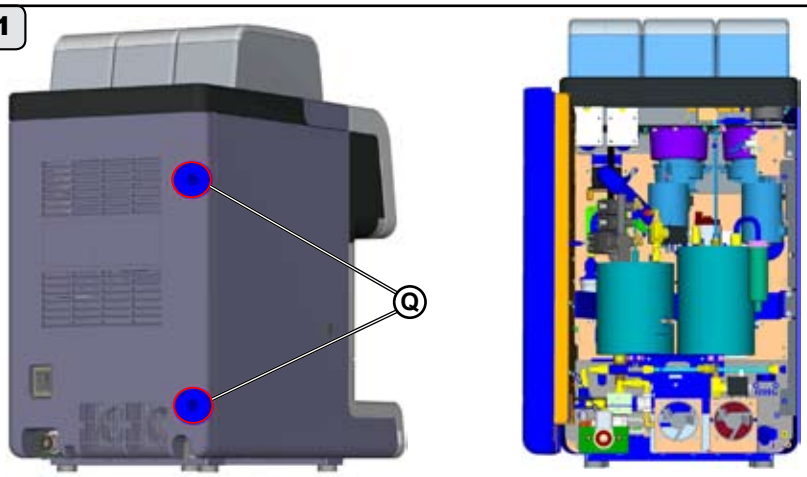
4



Svitare le viti di fissaggio indicate in figura e rimuovere il gruppo macinini.
Unscrew the fastening screws indicated in the figure and remove the grinder group.
Dévisser les vis de fixation indiquées sur la figure et retirer le groupe des moulins.
Die in der Abbildung angegebenen Befestigungsschrauben lösen und das Mahlwerk abnehmen.
Destornillar los tornillos de fijación indicados en la figura y desmontar el grupo molinillos.
Desaparafusar os parafusos de fixação indicados na figura e remover o grupo moinhos.

Apertura pannello posteriore - Opening the rear panel
Ouverture du panneau supérieur - Öffnen rückseitiges Paneel
Apertura del panel posterior - Abertura do painel posterior

1



Rimuovere le 2 viti (**Q**) situate nella parte posteriore della macchina e aprire il pannello.

Remove the 2 screws (**Q**) at the back of the machine and open the panel.

Retirer les 2 vis (**Q**) situées dans la partie postérieure de la machine et ouvrir le panneau.

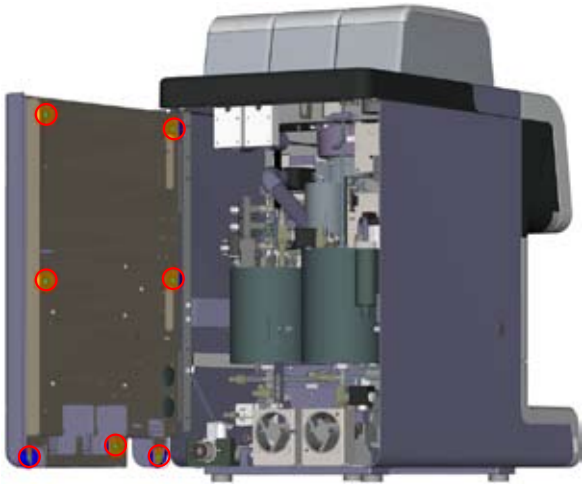
Die beiden Schrauben (**Q**) auf der Rückseite der Maschine lösen und das Paneel öffnen.

Desmontar los 2 tornillos (**Q**) situados en la parte posterior de la máquina y abrir el panel.

Remover os 2 parafusos (**Q**) situados na parte posterior da máquina e abrir o painel.

Rimozione copertura pannello posteriore - Rear panel cover removal
Retrait de la couverture du panneau postérieur - Ausbau Abdeckung rückseitiges Paneel
Desmontaje de la cubierta del panel posterior - Remoção da cobertura do painel posterior

1



Svitare le viti di fissaggio indicate in figura.

Unscrew the fastening screws indicated in the figure.

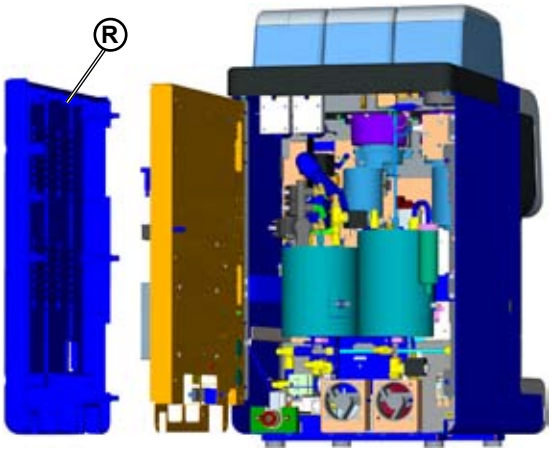
Dévisser les vis de fixation indiquées sur la figure.

Die in der Abbildung angegebenen Befestigungsschrauben lösen.

Destornillar los tornillos de fijación indicados en la figura.

Desaparafusar os parafusos de fixação indicados na figura.

2



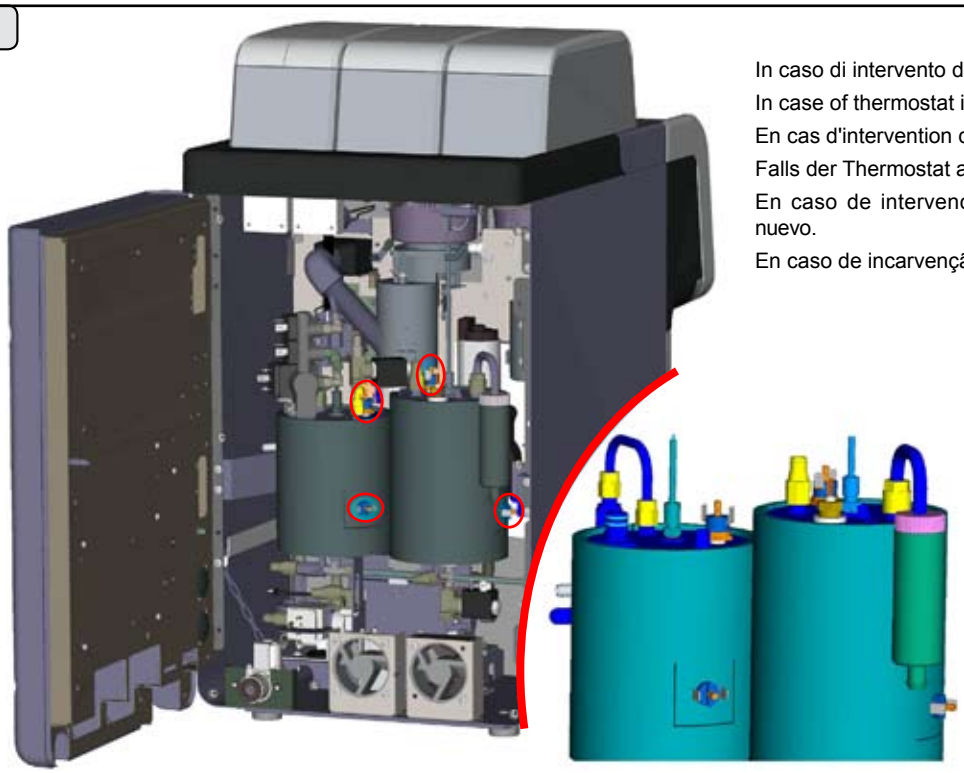
Rimuovere la copertura del pannello posteriore (**R**). - Remove the cover to the rear panel (**R**).

Retirer la couverture du panneau postérieur (**R**). - Die Abdeckung des rückseitigen Paneels (**R**) abnehmen.

Desmontar la cubierta del panel posterior (**R**). - Remover a cobertura do painel posterior (**R**).

Riarmo termostati - Thermostat reset
Réarmement des thermostats - Rücksetzung Thermostate
Rearme de los termostatos - Rearme dos termóstatos

1



In caso di intervento del termostato, riarmare.

In case of thermostat intervention, switch on again.

En cas d'intervention du thermostat, brancher de nouveau.

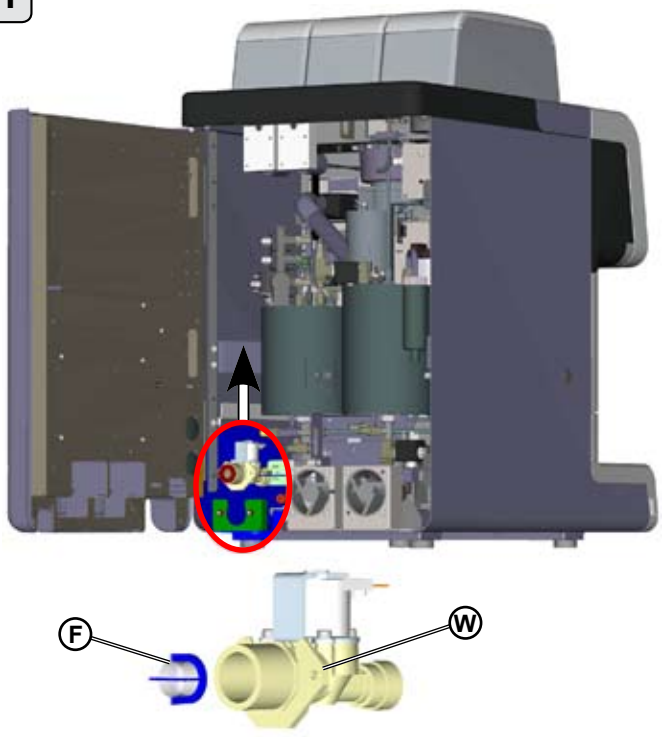
Falls der Thermostat ausgelöst wird, ihn wiederienschalten.

En caso de intervención del thermostato, reencender de nuevo.

En caso de incarvenção do termostato, reacender de novo.

Rimozione assieme ingresso acqua - Water inlet assembly removal
Retrait de l'ensemble de l'entrée de l'eau - Ausbau der Einheit Wassereinlauf
Desmontaje del grupo de entrada agua - Remoção do conjunto da entrada da água

1



Rimuovere l'assieme ingresso acqua (**W**) tirandolo verso l'alto.
Nota: l'estrazione del filtro (**F**) può avvenire anche senza lo smontaggio dell'assieme ingresso acqua (**W**).

Remove the water inlet assembly (**W**) by pulling it upward.
Note: the filter (**F**) can be removed even without dismantling the water inlet assembly (**W**).

Retirer l'ensemble de l'entrée de l'eau (**W**) en le tirant vers le haut.
Note: on peut extraire le filtre (**F**) sans démonter obligatoirement l'ensemble de l'entrée de l'eau (**W**).

Die Einheit Wassereinlauf (**W**) ausbauen, indem sie nach oben hin herausgezogen wird.
Anmerkung: Der Filter (**F**) kann auch ohne Ausbau der Einheit (**W**) ausgebaut werden.

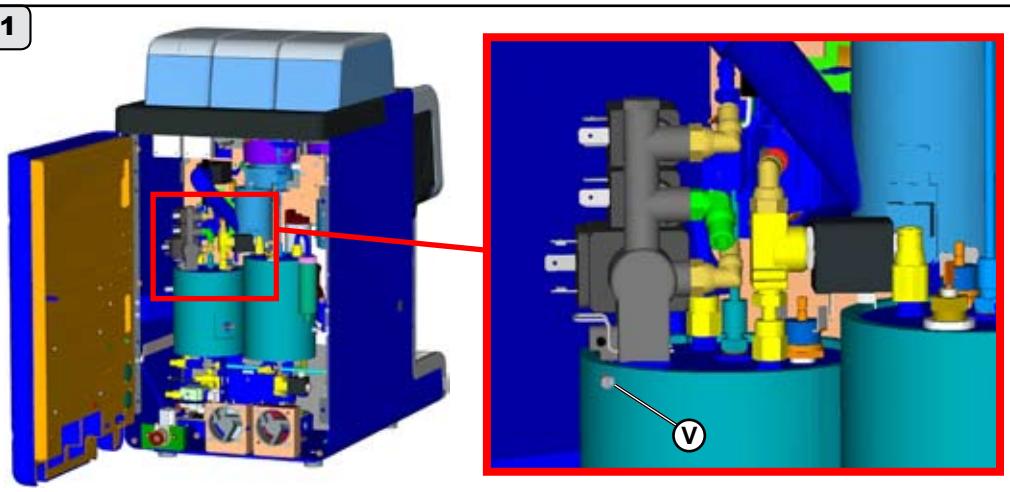
Desmontar el grupo de entrada agua (**W**) tirando de él hacia arriba.
Nota: la extracción del filtro (**F**) se puede realizar incluso sin el desmontaje del grupo entrada agua (**W**).

Remover o conjunto da entrada da água (**W**) puxando-o para cima.
Nota: a extracção do filtro (**F**) pode ocorrer mesmo sem desmontar o conjunto da entrada da água (**W**).

Rimozione blocco EV - Solenoid valve block removal
Retrait du bloc EV - Ausbau Einheit Magnetventile
Desmontaje del bloque EV - Remoção do grupo EV

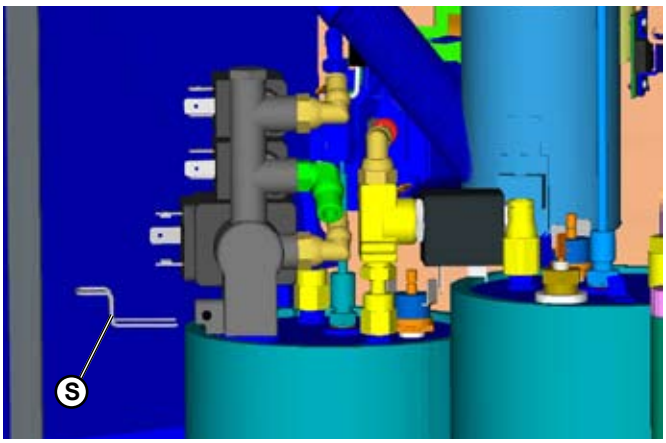
Prima di procedere con lo smontaggio scollegare dal blocco elettrovalvole i tubi idraulici e i connettori elettrici.
Before dismantling, disconnect the water tubes and electric connectors from the solenoid valve block.
Avant de procéder au démontage, débrancher les tuyaux hydrauliques et les prises électriques du bloc des soupapes électriques.
Vor dem Ausbau die Wasserleitungen und die elektrischen Steckverbinder von der Einheit Magnetventile abziehen.
Antes de realizar el desmontaje, hay que desconectar del bloque de electroválvulas los tubos hidráulicos y los conectores eléctricos.
Antes de proceder à desmontagem desconectar do grupo das electroválvulas os tubos hidráulicos e os conectores eléctricos.

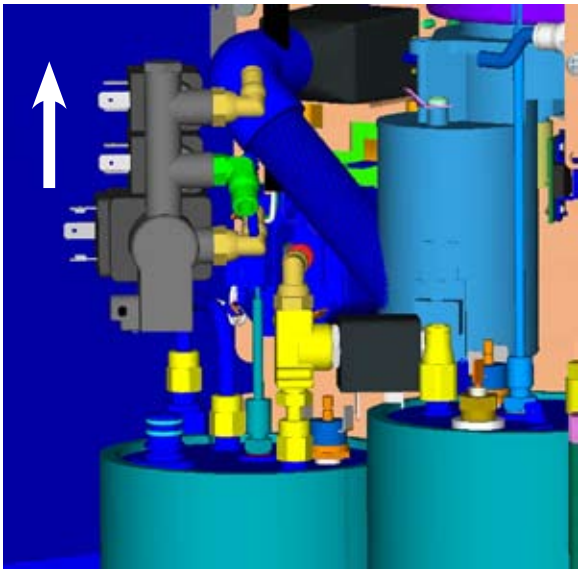
1



Rimuovere la vite di fermo (**V**).
Remove the fastening screws (**V**).
Retirer la vis d'arrêt (**V**).
Die Feststellschraube (**V**) lösen.
Desmontar el tornillo de fijación (**V**).
Remover os parafusos de bloqueio (**V**).

2





Estrarre la spina di bloccaggio (**S**) e rimuovere il gruppo elettrovalvole tirandolo verso l'alto.
Remove the lock pin (**S**) and remove the solenoid valve group by pulling it upward.
Extraire la cheville de blocage (**S**) et ôter le groupe de soupapes électriques en le tirant vers le haut.
Den Sperrstift (**S**) herausziehen und die Einheit Magnetventile ausbauen, indem sie nach oben hin herausgezogen wird.
Quitar la clavija de bloqueo (**S**) y desmontar el grupo electroválvulas tirando de él hacia arriba.
Extrair a ficha de bloqueio (**S**) e remover o grupo das electroválvulas puxando-o para cima.

Rimozione assieme caldaia/boiler - Boiler/heater assembly removal
Retrait de l'ensemble chaudière/chauffe-eau - Ausbau Einheit Wasserkessel / Boiler
Desmontaje del grupo caldera/calentador - Remoção do conjunto caldeira/boiler

Prima di procedere con lo smontaggio scollegare tutti i tubi idraulici e i connettori elettrici collegati all'assieme caldaia/boiler. NOTA: la sonda temperatura (T) è collegata direttamente alla scheda CPU (connettore Y14).

Before removal, disconnect all the water tubes and electric connectors connected to the boiler/heater. NOTE: the temperature probe (T) is directly connected to the CPU card (Y14 connector).

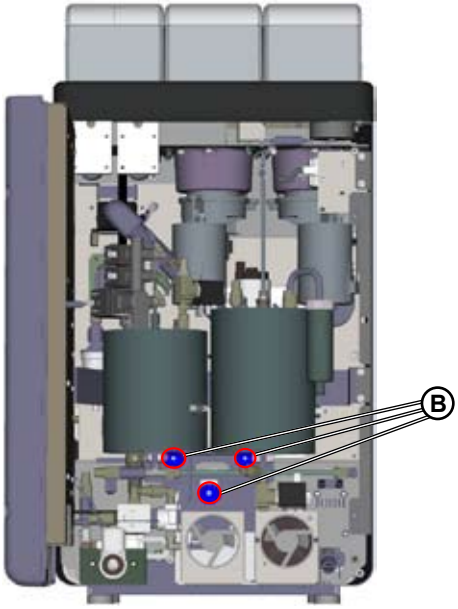
Avant de procéder au montage, débrancher tous les tuyaux hydrauliques et les prises électriques reliés à l'ensemble chaudière/chauffe-eau. NOTE : le capteur de la température (T) est reliée directement à la carte CPU (connecteur Y14).

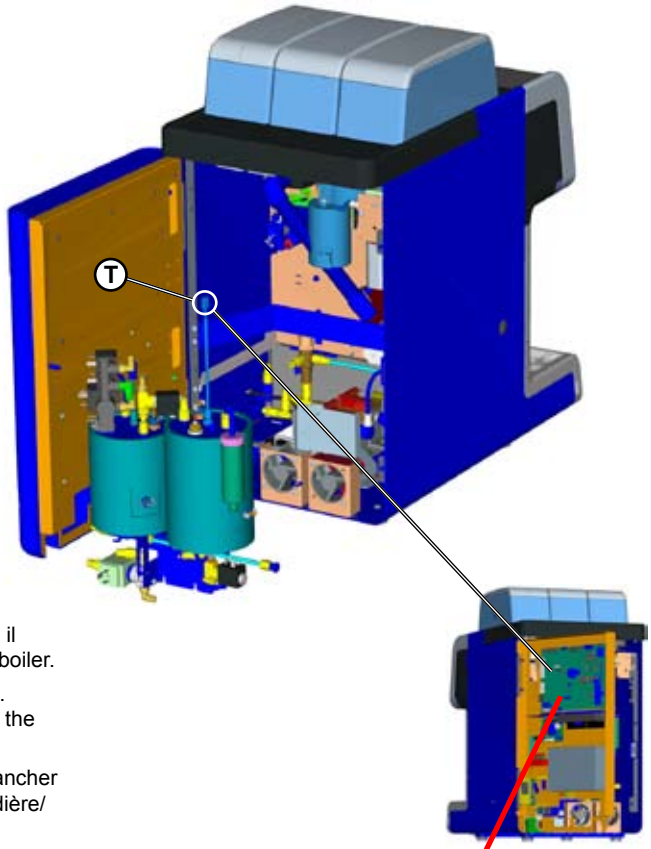
Vor dem Ausbau die Wasserleitungen und die elektrischen Steckverbinder von der Einheit Wasserkessel / Boiler abziehen. ANMERKUNG: Der Temperaturfühler (T) ist direkt an der CPU-Karte angeschlossen (Steckverbinder Y14).

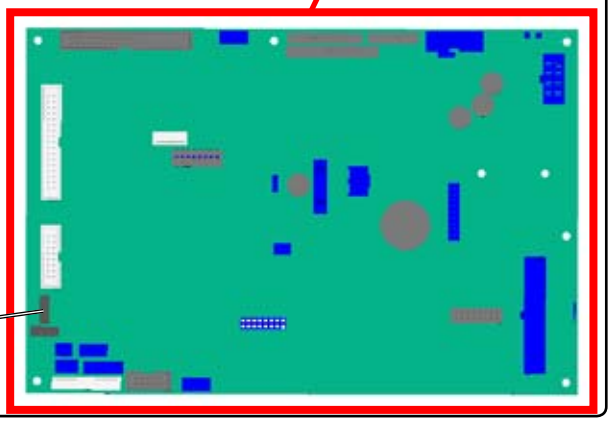
Antes de realizar el desmontaje hay que desconectar todos los tubos hidráulicos y los conectores eléctricos conectados al grupo caldera/calentador. NOTA: la sonda temperatura (T) está conectada directamente a la tarjeta CPU (conector Y14).

Antes de proceder à desmontagem desconectar todos os tubos hidráulicos e os conectores eléctricos conectados ao conjunto da caldeira /boiler. NOTA: a sonda da temperatura (T) está ligada directamente à ficha CPU (conector Y14).

1







Svitare le 3 viti di fissaggio (**B**) indicate in figura, scollegare il connettore (**T**) dalla scheda CPU ed estrarre l'assieme caldaia/boiler.

Unscrew the 3 fastening screws (**B**) indicated in the figure. Disconnect the connector (**T**) from the CPU card and remove the boiler/heater assembly.

Dévisser les 3 vis de fixation (**B**) indiquées dans la figure, débrancher le connecteur (**T**) de la carte CPU et extraire l'ensemble chaudière/ chauffe-eau.

Die 3 in der Abbildung gezeigten Schrauben (**B**) lösen, den Steckverbinder (**T**) von der CPU-Karte abziehen und die Einheit Wasserkessel / Boiler herausnehmen.

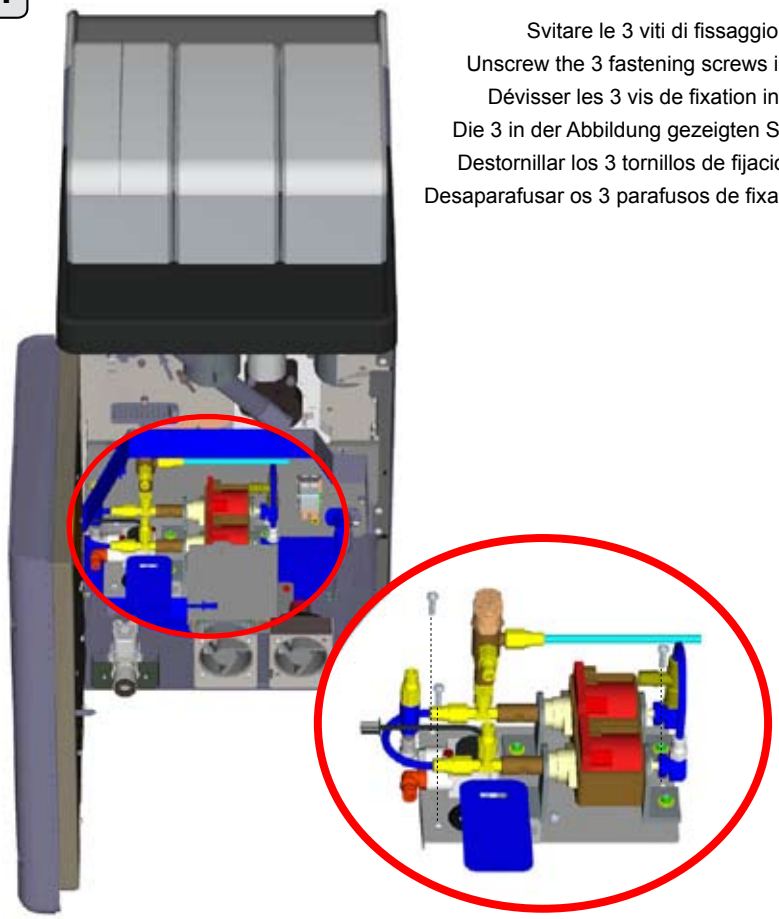
Destornillar los 3 tornillos de fijación (**B**) indicados en la figura, desconectar el conector (**T**) de la tarjeta CPU y desmontar el grupo caldera/calentador.

Desparafusar os 3 parafusos de fixação (**B**) indicados na figura, desconectar o conector (**T**) da ficha CPU e extrair o conjunto caldeira /boiler.

Rimozione assieme pompe - Pump assembly removal
Retrait de l'ensemble pompes - Ausbau Pumpeneinheit
Desmontaje del grupo bombas - Remoção do conjunto das bombas

Prima di procedere con lo smontaggio scollegare tutti i tubi idraulici e i connettori elettrici collegati all'assieme pompe.
Before removal, disconnect all the water tubes and electric connectors connected to the pump assembly.
Avant de procéder au montage, débrancher tous les tuyaux hydrauliques et les prises électriques reliés à l'ensemble pompes.
Vor dem Ausbau die Wasserleitungen und die elektrischen Steckverbinder von der Pumpeneinheit abziehen.
Antes de realizar el desmontaje hay que desconectar todos los tubos hidráulicos y los conectores eléctricos conectados al grupo bombas.
Antes de proceder à desmontagem desconectar todos os tubos hidráulicos e os conectores eléctricos conectados ao conjunto das bombas.

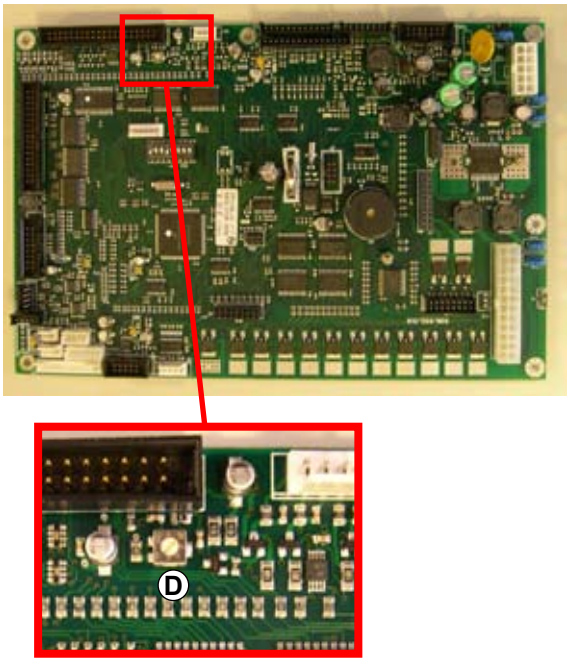
1



Svitare le 3 viti di fissaggio indicate in figura e rimuovere l'assieme pompe.
Unscrew the 3 fastening screws indicated in the figure and remove the pump assembly.
Dévisser les 3 vis de fixation indiquées dans la figure et retirer l'ensemble pompes.
Die 3 in der Abbildung gezeigten Schrauben lösen und die Pumpeneinheit herausnehmen.
Destornillar los 3 tornillos de fijación indicados en la figura y desmontar el grupo bombas.
Desaparafusar os 3 parafusos de fixação indicados na figura e remover o conjunto das bombas.

Regolazione contrasto display - Display contrast setting
Reglage du contraste du display - Einstellung des kontrasts der Display
Regulación del contraste del display - Reglage do contraste do display

1



Agire sul trimmer (**D**) posto sulla scheda elettronica affinchè sul display si leggano i messaggi in modo chiaro.

Adjust trimmer (**D**) located on the electronic card until the messages may be clearly read on the display.

Agir sur le trimmer (**D**) plaçé sur la fiche électronique afin de pouvoir lire clairement les messages qui apparaissent sur le display.

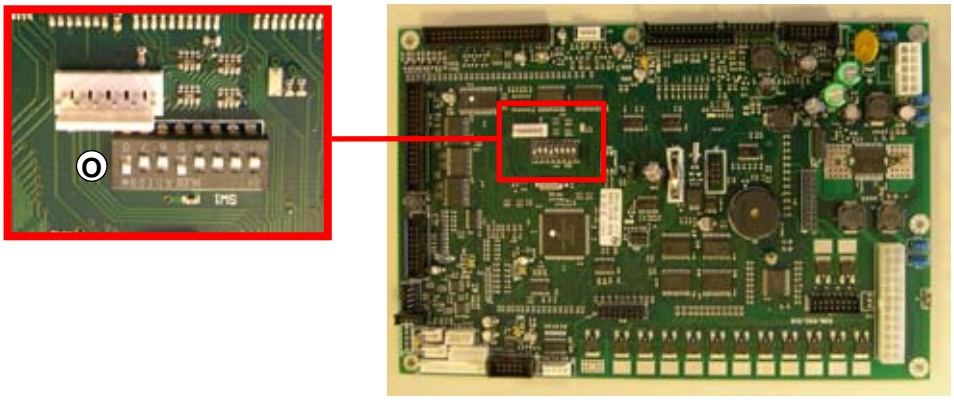
Stellen Sie den auf der Elektronikkarte installierten Reger (**D**) so ein, daß die Meldungen auf der Anzeige in gutem Kontrast abgebildet werden und gut abgelesen werden können.

Utilizar el trimmer (**D**) situado en la tarjeta electrónica para que se lean los mensajes claramente en el visualizador.

Utilizar o trimmer (**D**) colocado sobre a ficha electrónica para que sobre o mostrador se leiam as mensagens de modo claro.

Dip-Switch CPU - CPU Dip-Switch
Dip-Switch CPU - Dip-Switch CPU
Dip-Switch-Schalter CPU - Dip-Switch CPU

1



ATTENZIONE!
Il cambiamento di posizione dei Dip-Switch deve essere effettuato RIGOROSAMENTE a macchina SPENTA.
Nelle condizioni standard i Dip-Switch sono posizionati su OFF.
Agendo sui Dip-Switch (**O**) si attivano le seguenti funzioni:
- DIP 1 = OFF - ON inserimento dati standard (*)
- DIP 2 = OFF
- DIP 3 = OFF - ON simulazione chiave tecnico
- DIP 4 = OFF - ON contabilità
- DIP 5 = OFF - ON abilitazione sequenza tasti per ingresso in programmazione
- DIP 6 = OFF
- DIP 7 = OFF
- DIP 8 = OFF

(*) Al termine delle operazioni di inserimento dati standard, riportare il DIP 1 sulla posizione OFF.

CAUTION!
When changing the position of the Dip-Switch, the machine MUST BE SWITCHED OFF.
Under standard conditions, the dip-switches are positioned on OFF.
The dip-switches (**O**) have the following functions:
- DIP 1 = OFF - ON Input of standard (*) data
- DIP 2 = OFF
- DIP 3 = OFF - ON Simulation of engineer's key
- DIP 4 = OFF - ON Bookkeeping
- DIP 5 = OFF - ON allows keys sequence to enter programming
- DIP 6 = OFF
- DIP 7 = OFF
- DIP 8 = OFF

(*) Upon completion of the standard data input operations, position DIP 1 to OFF again.

ATTENTION!
Le changement de position des Dip-Switch doit être RIGOUREUSEMENT effectué lorsque la machine est ETEINTE.
En phase de standard, les Dip-Switch sont plaçés sur OFF.
Utiliser les Dip-Switch (**O**) pour activer les fonctions suivante:
- DIP 1 = OFF - ON introduction informations standard (*)
- DIP 2 = OFF
- DIP 3 = OFF - ON simulation clef technique
- DIP 4 = OFF - ON comptabilité
- DIP 5 = OFF - ON habilite la séquence de touches pour entrer en programmation
- DIP 6 = OFF
- DIP 7 = OFF
- DIP 8 = OFF

(*) à la fin des opérations d'introduction des informations standard, remettre le DIP 1 sur la position OFF.

ACHTUNG:
Die Verstellung der Dip-Switch-Schalter darf nur bei ABGESCHALTETER Maschine vorgenommen werden!
Bei normalen Betriebsbedingungen müssen die Dip-Switch-Schalter auf OFF gestellt sein. Nachstehend werden die Funktionen bei entsprechender Einstellung der Dip-Switch-Schalter (**O**) aufgeführt:
- DIP 1 = OFF - ON Eingabe Standarddaten (*)
- DIP 2 = OFF
- DIP 3 = OFF - ON Simulation Monteurschlüssel
- DIP 4 = OFF - ON Buchführung
- DIP 5 = OFF - ON ermächtigen Sie die Anschlagsequenz, um in Programmierung hineinzugehen
- DIP 6 = OFF
- DIP 7 = OFF
- DIP 8 = OFF

(*) Nach Abschluß der Eingabe der Standarddaten muß der Dip-Switch-Schalter 1 auf OFF zurückgestellt werden.

¡ATENCIÓN!
El cambio de posición de los Dip-switch (O) se tiene que efectuar RIGUROSAMENTE con la máquina APAGADA.
En condiciones estándares los Dip-switch están colocados en OFF.
Por medio de los Dip-Switch (**O**) se activan las siguientes funciones:
- DIP 1 = OFF - ON introducción datos estándares (*)
- DIP 2 = OFF
- DIP 3 = OFF - ON simulación llave técnico
- DIP 4 = OFF - ON contabilidad
- DIP 5 = OFF - ON habilita la secuencia de teclas para entrar en programación
- DIP 6 = OFF
- DIP 7 = OFF
- DIP 8 = OFF

(*) Al final de las operaciones de introducción datos estándares, restablecer el DIP 1 a la posición OFF.

ATENÇÃO!
A mudança de posição dos Dip-Switch deverá ser efectuada RIGOROSAMENTE com a máquina DESLIGADA.
Nas condições standard os Dip-Switch estão posicionados em OFF.
Actuando nos Dip-Switch (**O**) activam-se as funções a seguir indicadas:
- DIP 1 = OFF - ON introdução dados standard (*)
- DIP 2 = OFF
- DIP 3 = OFF - ON simulação chave técnico
- DIP 4 = OFF - ON contabilidade
- DIP 5 = OFF - ON habilita a sequência das teclas para entrar em programação
- DIP 6 = OFF
- DIP 7 = OFF
- DIP 8 = OFF

(*) No fim das operações de introdução dos dados standard, recolocar o DIP 1 na posição OFF.